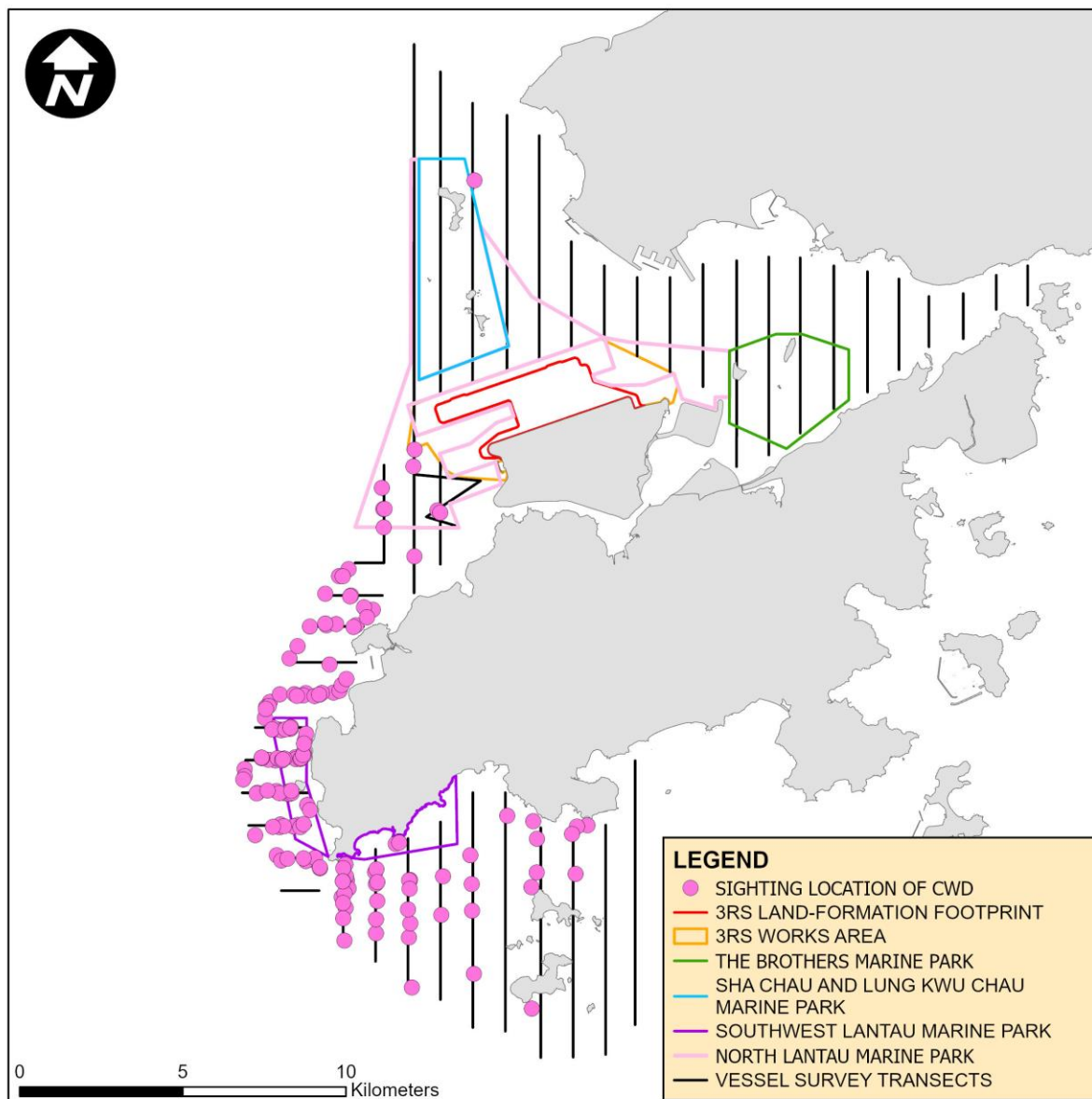


# Appendix E. Chinese White Dolphin Monitoring Results

**Figure 1: Sightings Distribution of Chinese White Dolphins in 2024**



**Figure 2: Fitted Detection Function of the 2024 CWD Sightings, Pooled from All Western Hong Kong Survey Areas (truncation distance = 650 m)**

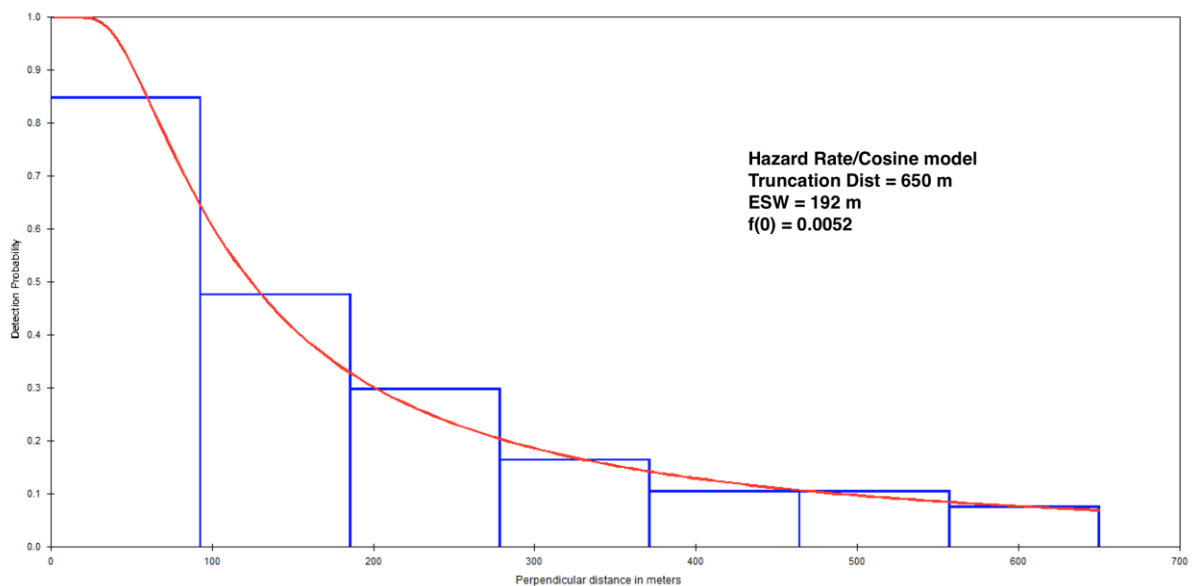
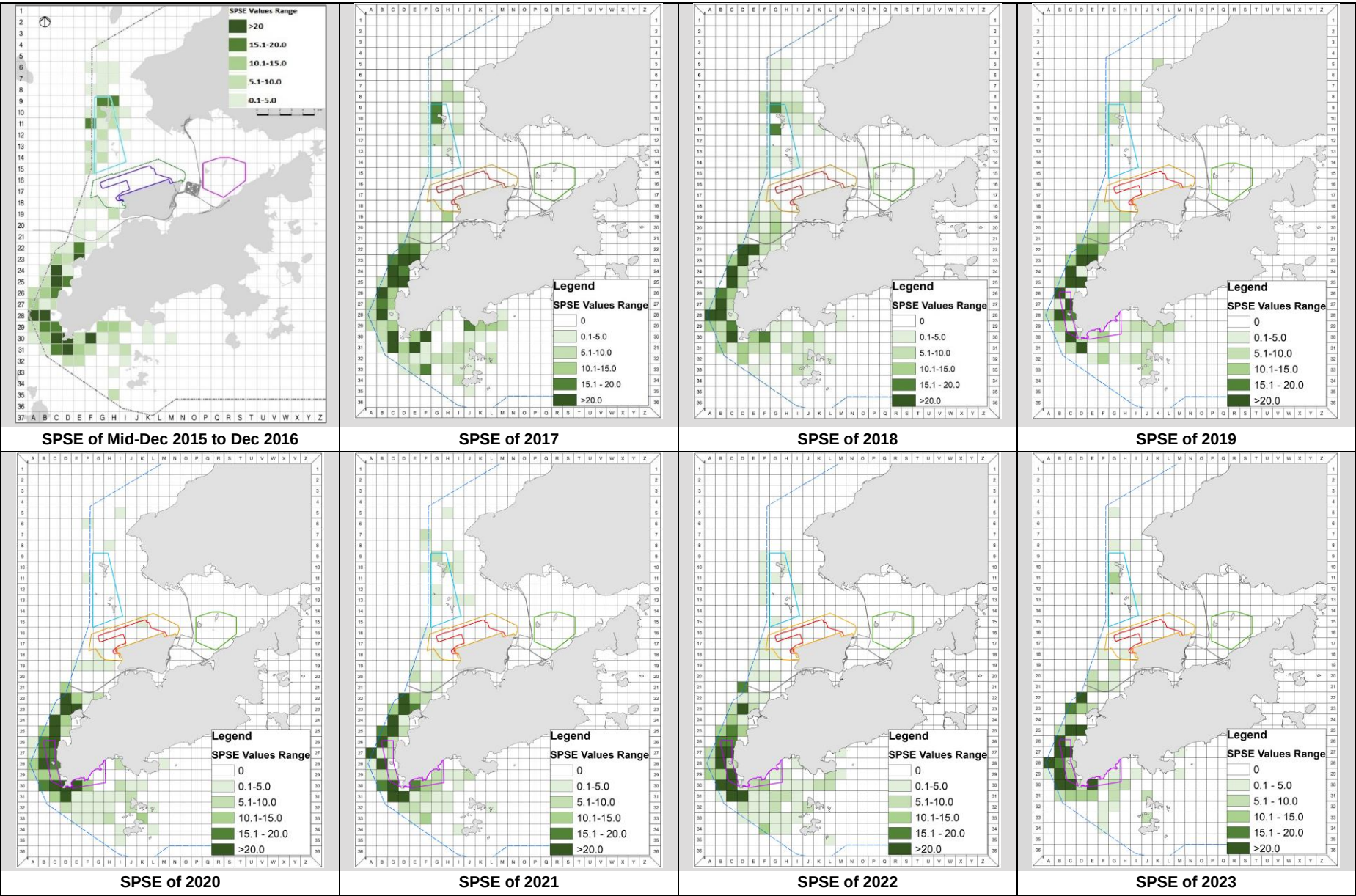
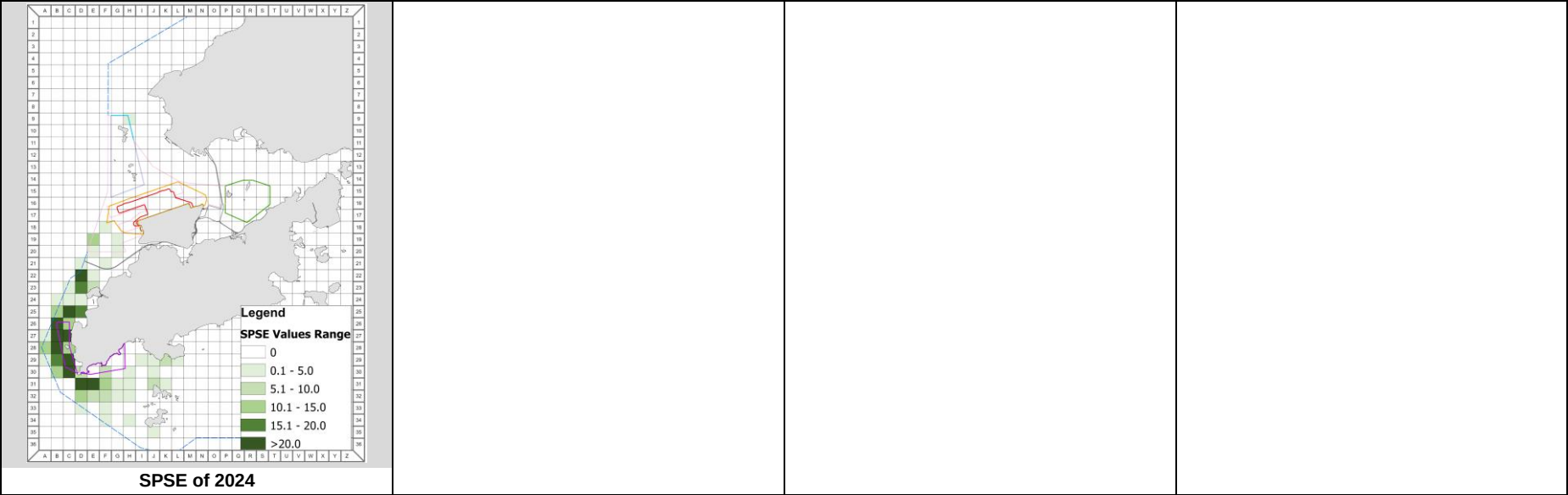


Figure 3: Quantitative Grid Analysis for CWDs

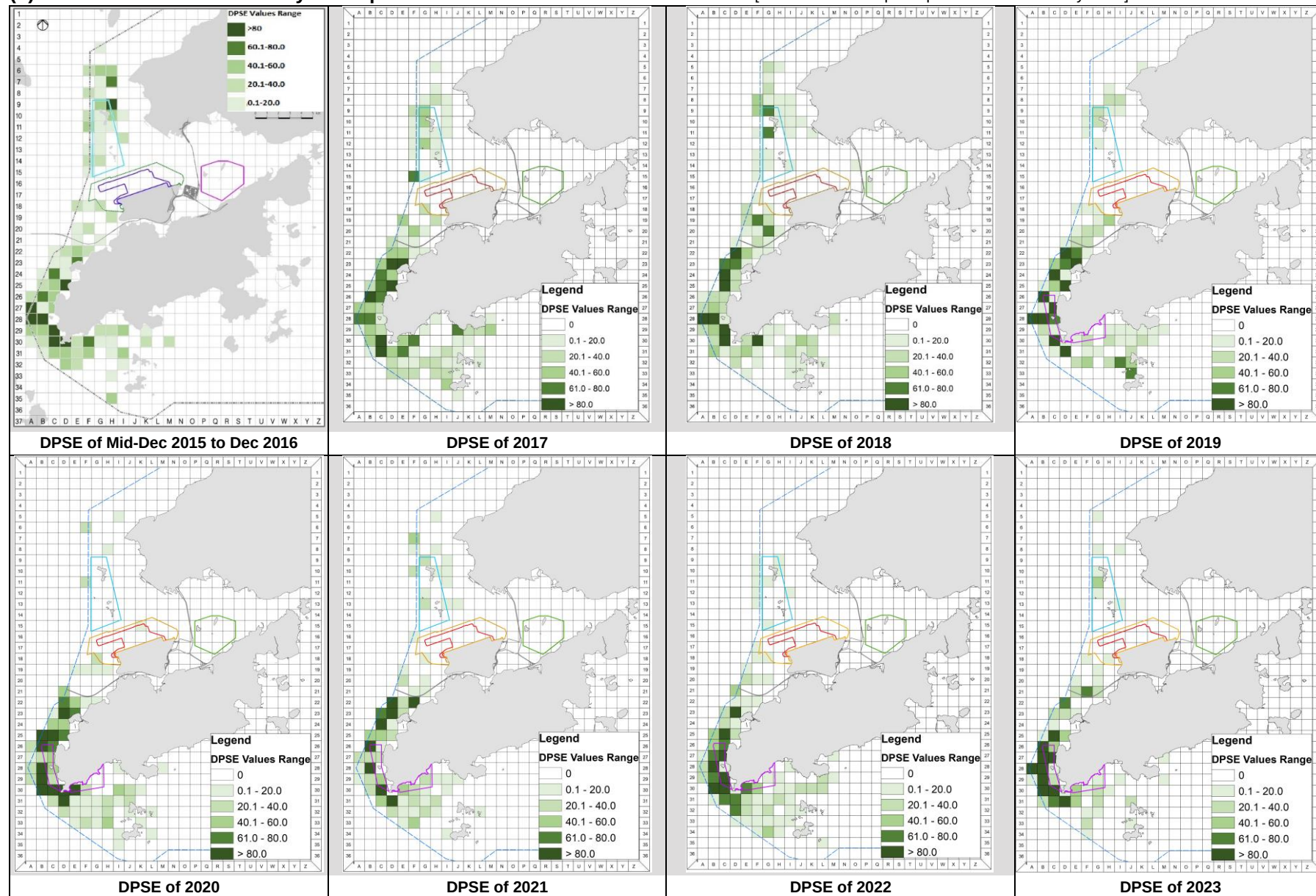
(a) SPSE with Corrected Survey Effort per km<sup>2</sup> of Year 2024 and Previous Years [SPSE = no. of on-effort dolphin sightings per 100 units of survey effort]

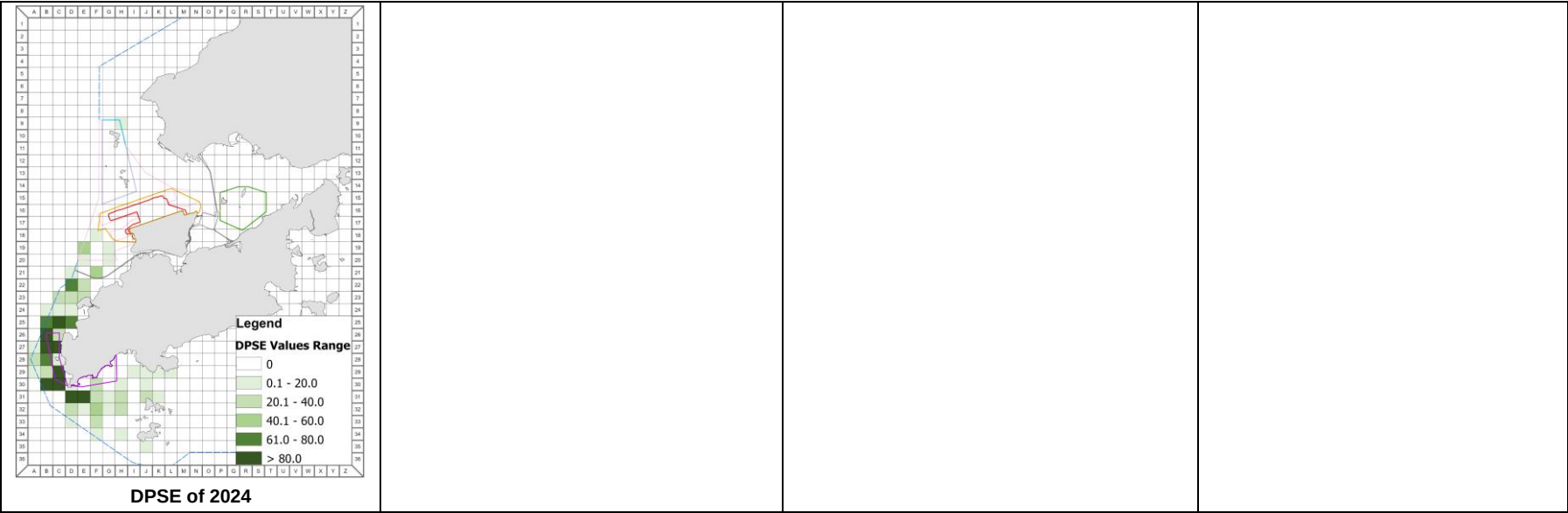






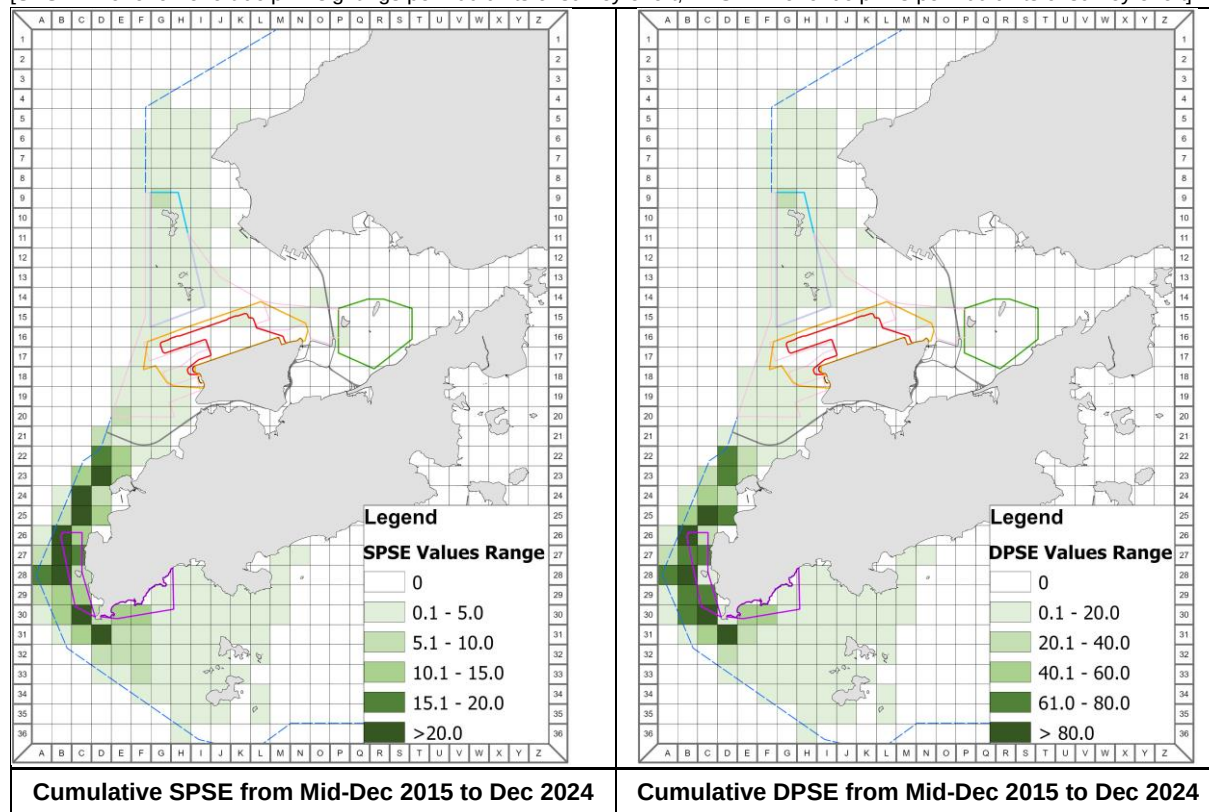
**(b) DPSE with Corrected Survey Effort per km<sup>2</sup> of Year 2024 and Previous Years** [DPSE = no. of dolphins per 100 units of survey effort]





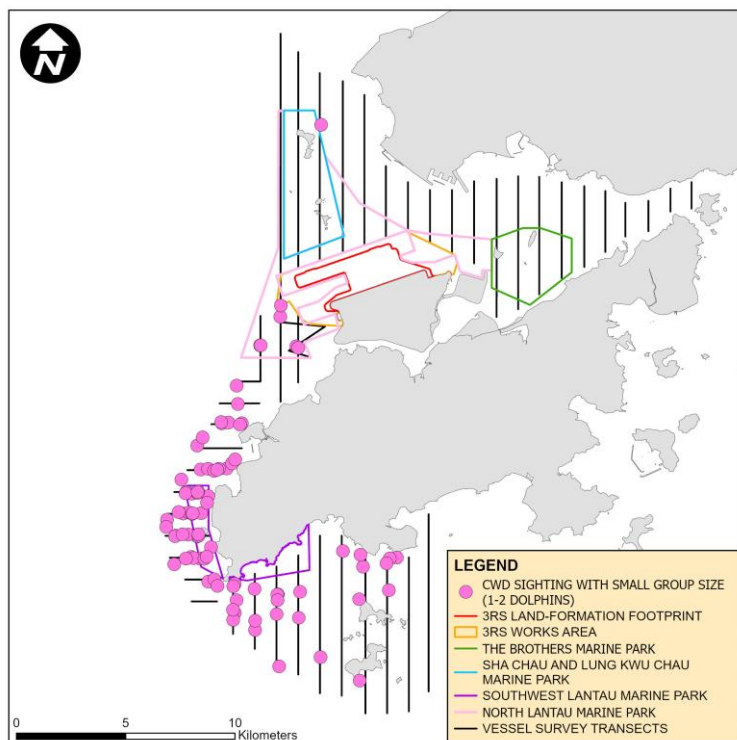
**Figure 4: Cumulative SPSE and DPSE of CWDs with Corrected Survey Effort per km<sup>2</sup> from Dec 2015 to Dec 2024**

[SPSE = no. of on-effort dolphin sightings per 100 units of survey effort, DPSE = no. of dolphins per 100 units of survey effort]

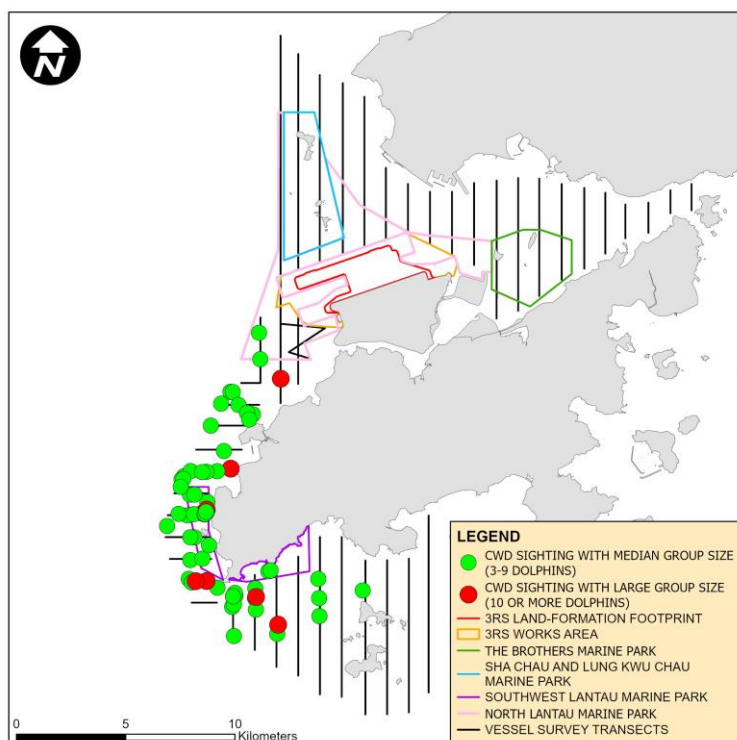




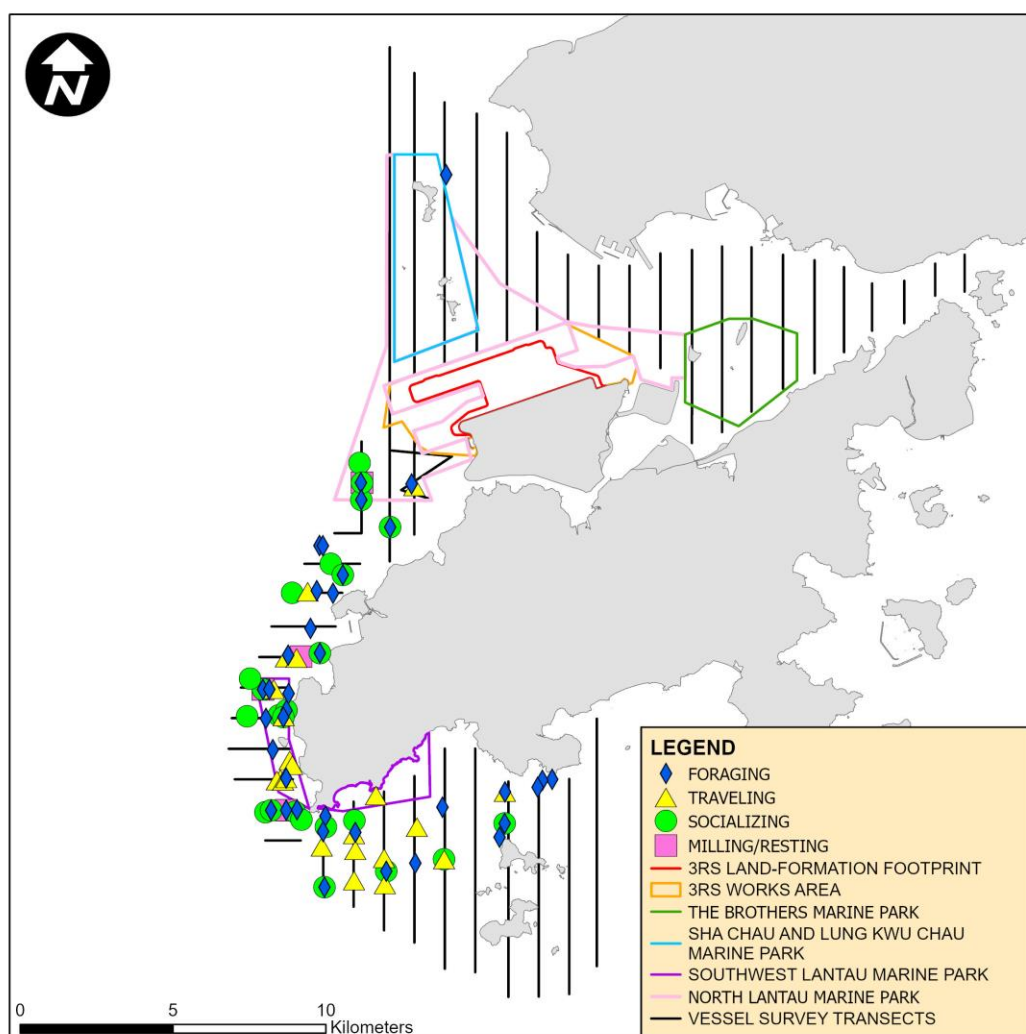
**Figure 5: Sightings Distribution of Chinese White Dolphins with Different Group Sizes in 2024**  
**(a) Small Group Size (1 to 2 dolphins)**



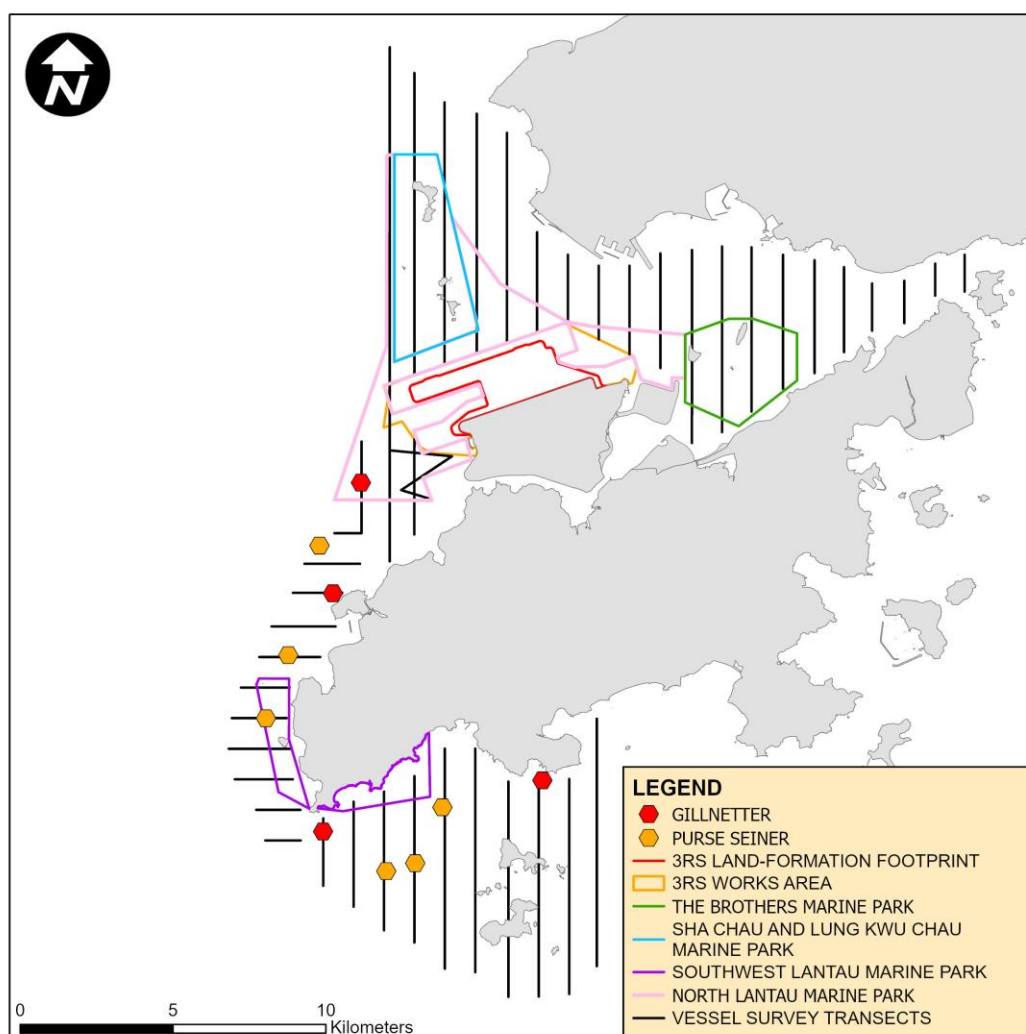
**(b) Medium Group Size (3 to 9 dolphins) and Large Group Size (10 or more dolphins)**



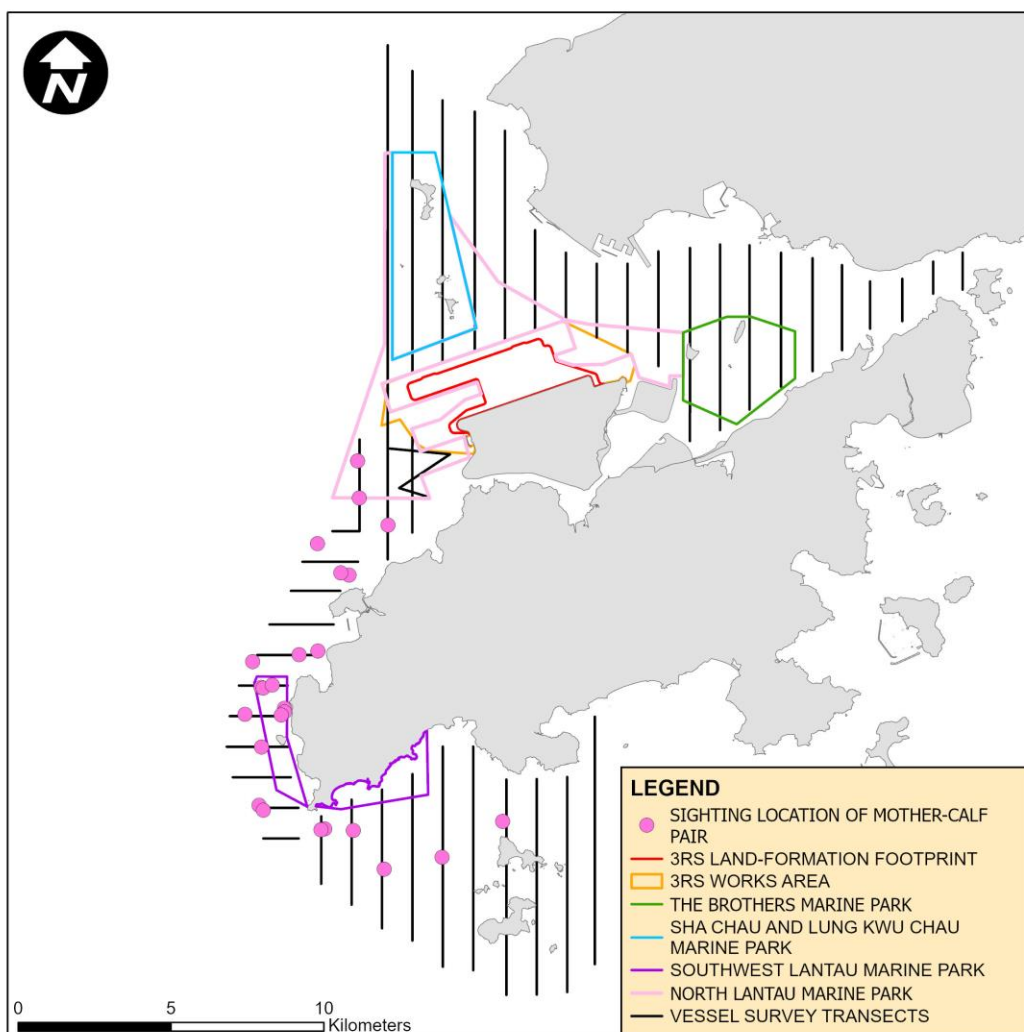
**Figure 6: Sighting Locations of CWD Groups Engaged in Different Activities in 2024**



**Figure 7: Sighting Locations of CWD Groups in Association with Fishing Boat in 2024**

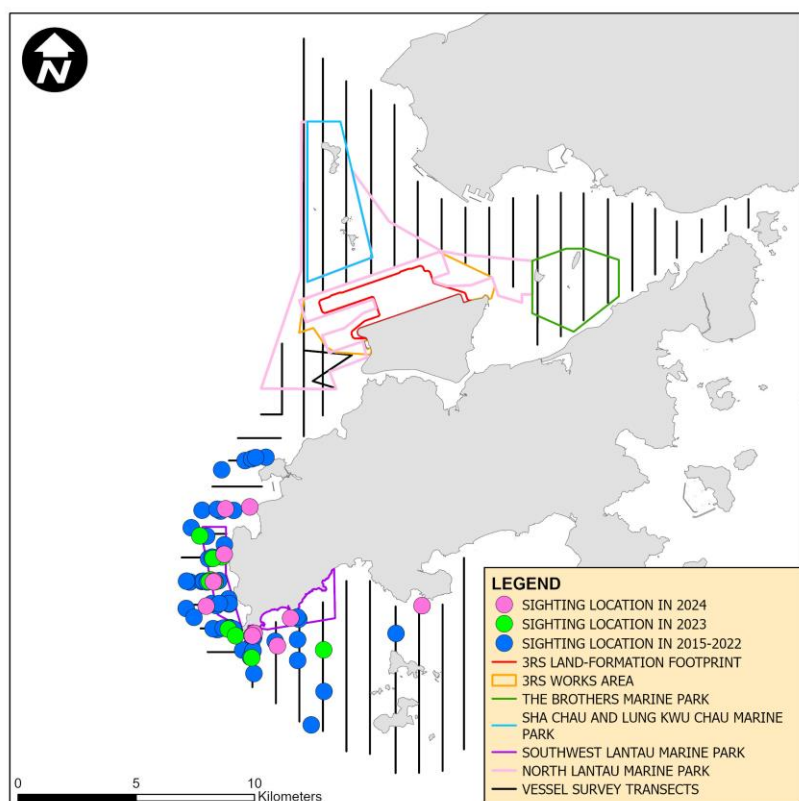


**Figure 8: Sighting Locations of Mother-Calf Pairs in 2024**

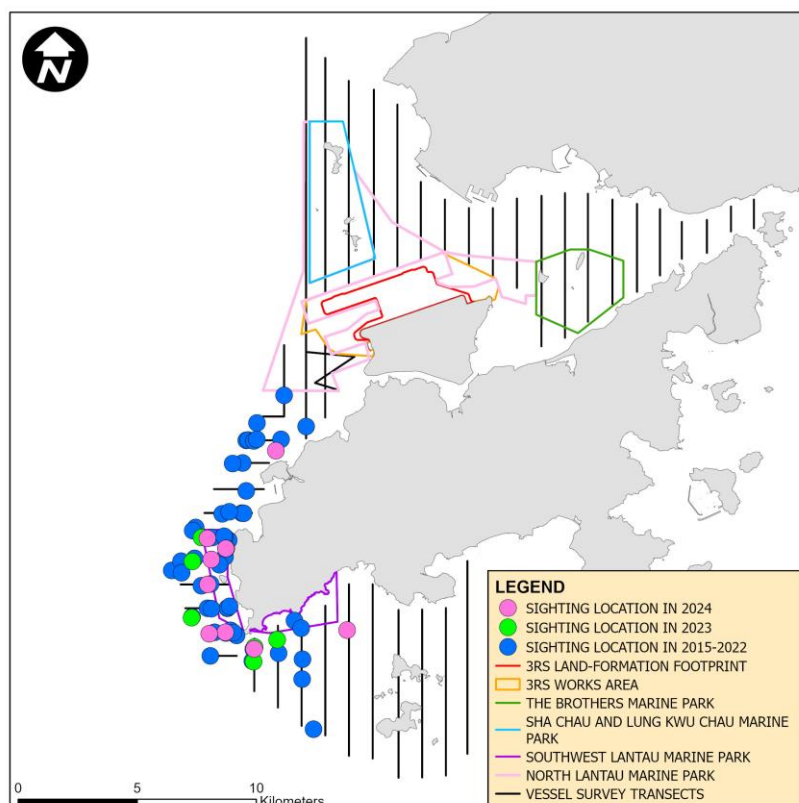


**Figure 9: Photo Identification – Re-sighting Locations**

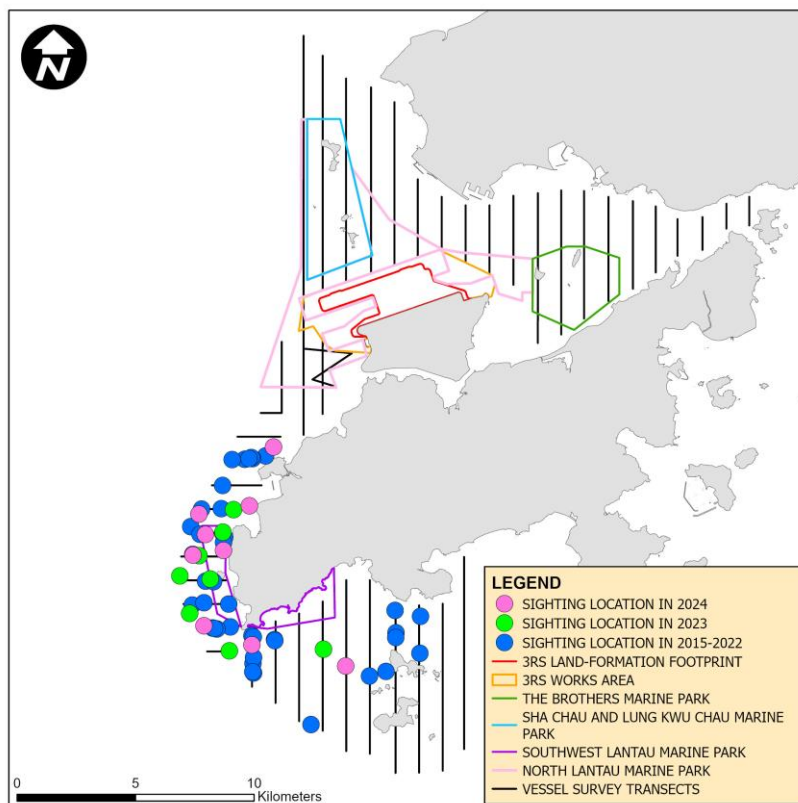
(a) SLMM003 – the most frequently re-sighted animal in 2024 and the 2<sup>nd</sup> most frequently sighted animal overall



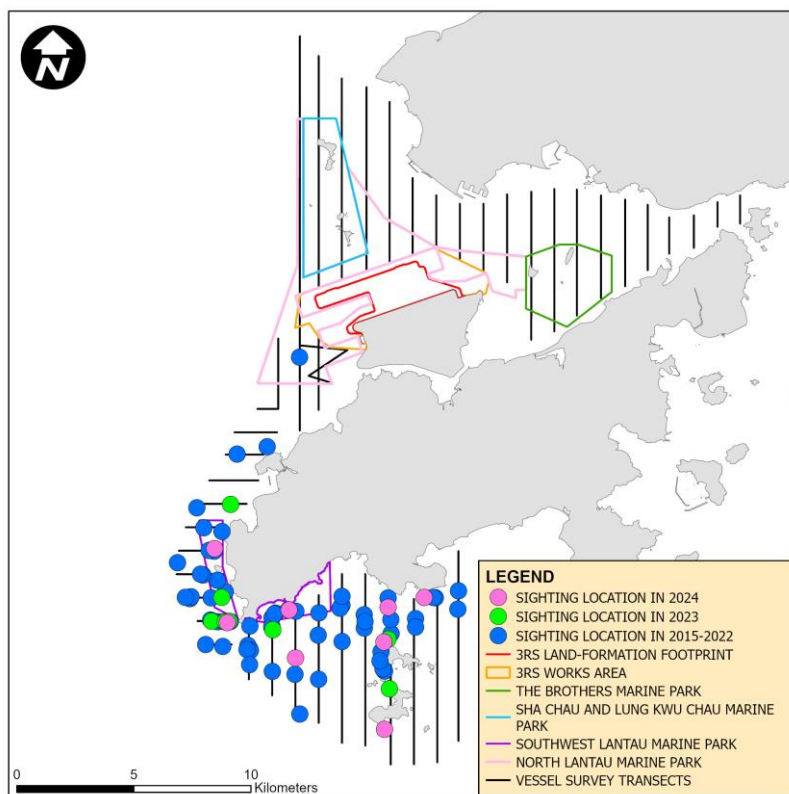
(b) WLMM001 – the 2<sup>nd</sup> most frequently re-sighted animal in 2024



(c) SLMM052 – the 2<sup>nd</sup> most frequently resighted animal in 2024



(d) SLMM014 – the most frequently resighted animal overall





**Table 1: CWD Vessel Survey Effort by Survey Areas in 2024**

| Survey Area     | Survey Effort (km) | Survey Effort under Favourable Weather Condition (km) |
|-----------------|--------------------|-------------------------------------------------------|
| NEL             | 1127.9             | 1085.5                                                |
| NWL             | 1807.0             | 1720.3                                                |
| AW              | 113.2              | 109.5                                                 |
| WL              | 696.0              | 589.7                                                 |
| SWL             | 1647.0             | 1524.8                                                |
| <b>Combined</b> | <b>5391.2</b>      | <b>5029.8</b>                                         |

**Table 2: CWD Sightings by Survey Areas in 2024**

| Survey Area     | No. of Sighting (On-effort) | No. of Dolphin (On-effort) | No. of On-effort Sighting under Favourable Weather Condition | No. of On-effort Dolphin under Favourable Weather Condition |
|-----------------|-----------------------------|----------------------------|--------------------------------------------------------------|-------------------------------------------------------------|
| NEL             | 0                           | 0                          | 0                                                            | 0                                                           |
| NWL             | 5                           | 16                         | 5                                                            | 16                                                          |
| AW              | 1                           | 1                          | 1                                                            | 1                                                           |
| WL              | 100                         | 334                        | 100                                                          | 334                                                         |
| SWL             | 45                          | 139                        | 43                                                           | 132                                                         |
| <b>Combined</b> | <b>151</b>                  | <b>490</b>                 | <b>149</b>                                                   | <b>483</b>                                                  |

**Table 3: CWD Line Transects Parameters and Estimates of Density and Abundance for Western Hong Kong, 2024**

| Time Period         | Stratum        | No. of Sightings* | Average Group Size | Trackline Detection Prob. - g(0) | Individual Density (no./100km <sup>2</sup> ) | Abundance | 95% CI (Abund.) | %CV         |
|---------------------|----------------|-------------------|--------------------|----------------------------------|----------------------------------------------|-----------|-----------------|-------------|
| Jan-Dec 2024        | AW             | 1                 | 1.0                | 1.0                              | 2.37                                         | 0         | N/A             | N/A         |
| Jan-Dec 2024        | DB             | 0                 | 0                  | 1.0                              | 0.00                                         | 0         | N/A             | N/A         |
| Jan-Dec 2024        | NEL            | 0                 | 0                  | 1.0                              | 0.00                                         | 0         | N/A             | N/A         |
| Jan-Dec 2024        | NWL            | 4                 | 1.9                | 1.0                              | 1.14                                         | 1         | 0-4             | 70.5        |
| Jan-Dec 2024        | SWL            | 40                | 3.2                | 1.0                              | 21.86                                        | 15        | 8-28            | 34.0        |
| Jan-Dec 2024        | WL             | 94                | 3.2                | 1.0                              | 135.0                                        | 44        | 28-70           | 23.9        |
| <b>Jan-Dec 2024</b> | <b>Pooled^</b> | <b>139</b>        | <b>3.1</b>         | <b>1.0</b>                       | <b>34.0</b>                                  | <b>60</b> | <b>39-91</b>    | <b>21.9</b> |
| Jan-Dec 2024        | Winter#        | 22                | 4.8                | 1.0                              | 29.19                                        | 63        | 23-172          | 53.2        |
| Jan-Dec 2024        | Spring#        | 26                | 3.1                | 1.0                              | 20.79                                        | 45        | 20-101          | 42.1        |
| Jan-Dec 2024        | Summer#        | 78                | 3.2                | 1.0                              | 48.25                                        | 104       | 64-169          | 24.9        |
| Jan-Dec 2024        | Autumn#        | 13                | 2.0                | 1.0                              | 10.83                                        | 23        | 10-56           | 44.4        |

\* After truncation

^ Pooled abundance not including Airport West (AW). Note that the pooled estimates do not necessarily add up to the sum of the individual stratum estimates, as these are computed separately.

# The seasonal estimates do not include AW.

**Table 4: Average Group Sizes of CWDs by Survey Areas in 2024**

| Survey Area | Average Group Size of CWDs |
|-------------|----------------------------|
| NEL         | 0.00                       |
| NWL         | 3.20                       |
| AW          | 1.00                       |
| WL          | 3.34                       |
| SWL         | 3.09                       |
| Overall     | 3.25 ± 2.68                |

**Table 5: Average Group Sizes of CWDs by Seasons in 2024**

| Solar Season | Average Group Size of CWDs |
|--------------|----------------------------|
| Spring       | 2.59                       |
| Summer       | 3.51                       |
| Autumn       | 1.93                       |
| Winter       | 3.80                       |

**Table 6: Percentage of CWD Groups recorded as Exhibiting Various Behaviours/Activities, and recorded as having Association with Fishing Boat**

| Survey Area | Year | Activity |            |             |                 | Fishing Boat Association |
|-------------|------|----------|------------|-------------|-----------------|--------------------------|
|             |      | Feeding  | Travelling | Socialising | Resting/Milling |                          |
| AW          | 2023 | -        | -          | -           | -               | -                        |
|             | 2024 | 100%     | 0%         | 0%          | 0%              | 0%                       |
| NEL         | 2023 | -        | -          | -           | -               | -                        |
|             | 2024 | -        | -          | -           | -               | -                        |
| NWL         | 2023 | 20%      | 7%         | 13%         | -               | 7%                       |
|             | 2024 | 40%      | 20%        | 20%         | 0%              | 0%                       |
| WL          | 2023 | 26%      | 5%         | 16%         | 2%              | 5%                       |
|             | 2024 | 21%      | 11%        | 17%         | 4%              | 5%                       |
| SWL         | 2023 | 34%      | 9%         | 9%          | -               | 13%                      |
|             | 2024 | 29%      | 22%        | 13%         | 0%              | 11%                      |
| Overall     | 2023 | 31%      | 6%         | 17%         | 1%              | 7%                       |
|             | 2024 | 25%      | 15%        | 16%         | 3%              | 13%                      |

**Table 7: Summary of Photo Identification in 2024**

| Individual ID | Date of sighting (dd-mmm-yy) | Sighting No. | Area |
|---------------|------------------------------|--------------|------|
| NLMM012       | 12-Apr-24                    | 5            | WL   |
|               | 13-Aug-24                    | 2            | WL   |
|               | 4-Sep-24                     | 1            | NWL  |
|               | 10-Sep-24                    | 6            | WL   |
| NLMM013       | 14-May-24                    | 1            | NWL  |
|               | 10-Jul-24                    | 4            | WL   |
|               | 12-Jul-24                    | 3            | WL   |
|               | 13-Aug-24                    | 3            | WL   |
|               | 3-Dec-24                     | 1            | NWL  |
| NLMM020       | 12-Apr-24                    | 3            | WL   |
| NLMM023       | 25-Jun-24                    | 1            | NWL  |
|               | 9-Sep-24                     | 1            | WL   |
|               | 10-Sep-24                    | 8            | WL   |
|               | 3-Dec-24                     | 1            | NWL  |
| NLMM027       | 15-Jan-24                    | 1            | AW   |
|               | 9-Sep-24                     | 1            | WL   |
| NLMM028       | 23-Aug-24                    | 5            | WL   |
|               | 9-Sep-24                     | 2            | WL   |
|               | 10-Sep-24                    | 6            | WL   |
| NLMM039       | 11-Jun-24                    | 3            | WL   |
|               | 13-Aug-24                    | 2            | WL   |
|               | 4-Sep-24                     | 1            | NWL  |
| NLMM052       | 13-Aug-24                    | 3            | WL   |
| NLMM055       | 10-Sep-24                    | 9            | WL   |
| NLMM060       | 10-Jul-24                    | 3            | WL   |
| NLMM061       | 9-Jul-24                     | 2            | SWL  |
| NLMM063       | 9-Jul-24                     | 6            | SWL  |
| NLMM065       | 10-Jul-24                    | 1            | WL   |
|               | 13-Aug-24                    | 3            | WL   |
|               | 10-Sep-24                    | 9            | WL   |
| NLMM070       | 13-Aug-24                    | 3            | WL   |
| NLMM081       | 15-Jan-24                    | 3            | WL   |
| NLMM089       | 20-Jun-24                    | 6            | SWL  |
| NLMM090       | 4-Sep-24                     | 1            | NWL  |
| NLMM091       | 4-Sep-24                     | 1            | NWL  |
| NLMM092       | 4-Sep-24                     | 1            | NWL  |
| NLMM093       | 4-Sep-24                     | 1            | NWL  |
| SLMM002       | 15-Jan-24                    | 8            | WL   |
|               | 12-Apr-24                    | 9            | WL   |
|               | 9-Jul-24                     | 3            | SWL  |
|               | 7-Aug-24                     | 2            | SWL  |
|               | 18-Oct-24                    | 4            | WL   |
| SLMM003       | 15-Jan-24                    | 8            | WL   |
|               | 23-Jan-24                    | 2            | SWL  |
|               |                              | 3            | SWL  |
|               | 19-Feb-24                    | 1            | WL   |
|               | 22-Mar-24                    | 5            | WL   |
|               | 13-May-24                    | 3            | WL   |

| Individual ID | Date of sighting (dd-mmm-yy) | Sighting No. | Area |
|---------------|------------------------------|--------------|------|
|               | 11-Jun-24                    | 2            | WL   |
|               | 20-Jun-24                    | 1            | SWL  |
|               | 23-Aug-24                    | 4            | WL   |
|               | 27-Nov-24                    | 3            | SWL  |
|               | 18-Dec-24                    | 2            | SWL  |
| SLMM007       | 2-Feb-24                     | 1            | WL   |
|               | 19-Feb-24                    | 1            | WL   |
|               | 22-Mar-24                    | 2            | WL   |
|               | 9-Sep-24                     | 4            | WL   |
| SLMM010       | 13-Aug-24                    | 8            | WL   |
| SLMM014       | 19-Feb-24                    | 2            | WL   |
|               | 22-Mar-24                    | 3            | WL   |
|               | 6-May-24                     | 6            | SWL  |
|               |                              | 8            | SWL  |
|               | 20-Jun-24                    | 3            | SWL  |
|               | 11-Jul-24                    | 2            | SWL  |
|               | 7-Oct-24                     | 3            | SWL  |
|               |                              | 4            | SWL  |
| SLMM023       | 12-Apr-24                    | 3            | WL   |
|               | 3-Sep-24                     | 7            | SWL  |
|               |                              | 9            | SWL  |
|               | 10-Sep-24                    | 8            | WL   |
|               | 7-Oct-24                     | 6            | SWL  |
| SLMM025       | 12-Apr-24                    | 3            | WL   |
|               | 5-Jun-24                     | 1            | WL   |
|               | 18-Dec-24                    | 2            | SWL  |
| SLMM027       | 15-Jan-24                    | 6            | WL   |
|               | 12-Apr-24                    | 3            | WL   |
|               | 5-Jun-24                     | 1            | WL   |
|               | 9-Jul-24                     | 2            | SWL  |
| SLMM029       | 12-Apr-24                    | 11           | WL   |
|               | 20-Jun-24                    | 5            | SWL  |
| SLMM030       | 12-Jul-24                    | 6            | WL   |
| SLMM031       | 6-May-24                     | 6            | SWL  |
|               | 7-Oct-24                     | 5            | SWL  |
|               | 21-Nov-24                    | 1            | SWL  |
| SLMM034       | 7-Aug-24                     | 2            | SWL  |
| SLMM035       | 3-Sep-24                     | 6            | SWL  |
| SLMM037       | 19-Feb-24                    | 1            | WL   |
|               | 22-Mar-24                    | 3            | WL   |
| SLMM049       | 9-Jul-24                     | 3            | SWL  |
|               | 10-Jul-24                    | 4            | WL   |
|               | 12-Jul-24                    | 6            | WL   |
|               | 23-Aug-24                    | 4            | WL   |
|               | 10-Sep-24                    | 9            | WL   |
|               | 7-Oct-24                     | 6            | SWL  |
| SLMM050       | 9-Jul-24                     | 5            | SWL  |
|               |                              | 6            | SWL  |
|               | 10-Jul-24                    | 4            | WL   |
|               | 7-Aug-24                     | 2            | SWL  |

| Individual ID | Date of sighting (dd-mmm-yy) | Sighting No. | Area |
|---------------|------------------------------|--------------|------|
| SLMM052       | 15-Jan-24                    | 4            | WL   |
|               |                              | 6            | WL   |
|               | 2-Feb-24                     | 3            | WL   |
|               | 19-Feb-24                    | 1            | WL   |
|               | 12-Apr-24                    | 12           | WL   |
|               | 20-Jun-24                    | 5            | SWL  |
|               | 13-Aug-24                    | 8            | WL   |
|               | 9-Sep-24                     | 4            | WL   |
|               | 13-Dec-24                    | 1            | SWL  |
| SLMM055       | 8-Aug-24                     | 3            | SWL  |
| SLMM058       | 23-Aug-24                    | 1            | WL   |
| SLMM060       | 22-Mar-24                    | 4            | WL   |
|               | 20-Jun-24                    | 2            | SWL  |
| SLMM073       | 22-Mar-24                    | 2            | WL   |
| SLMM074       | 12-Apr-24                    | 7            | WL   |
| WLMM001       | 15-Jan-24                    | 4            | WL   |
|               | 2-Feb-24                     | 3            | WL   |
|               | 9-Jul-24                     | 3            | SWL  |
|               | 10-Jul-24                    | 4            | WL   |
|               | 12-Jul-24                    | 6            | WL   |
|               | 13-Aug-24                    | 13           | WL   |
|               | 9-Sep-24                     | 5            | WL   |
|               | 7-Oct-24                     | 6            | SWL  |
|               | 4-Dec-24                     | 4            | WL   |
| WLMM003       | 13-Aug-24                    | 13           | WL   |
|               | 23-Aug-24                    | 3            | WL   |
|               |                              | 4            | WL   |
|               |                              | 6            | WL   |
|               | 9-Sep-24                     | 5            | WL   |
| WLMM004       | 13-May-24                    | 2            | WL   |
|               | 20-Jun-24                    | 5            | SWL  |
| WLMM005       | 10-Jul-24                    | 4            | WL   |
|               | 12-Jul-24                    | 3            | WL   |
| WLMM007       | 15-Jan-24                    | 4            | WL   |
|               | 12-Apr-24                    | 6            | WL   |
|               |                              | 9            | WL   |
|               | 20-Jun-24                    | 4            | SWL  |
|               |                              | 5            | SWL  |
|               | 10-Sep-24                    | 9            | WL   |
| WLMM008       | 13-Dec-24                    | 1            | SWL  |
|               | 13-Aug-24                    | 8            | WL   |
| WLMM009       | 12-Jul-24                    | 3            | WL   |
| WLMM018       | 20-Jun-24                    | 4            | SWL  |
|               | 7-Oct-24                     | 6            | SWL  |
|               | 18-Dec-24                    | 2            | SWL  |
| WLMM027       | 2-Feb-24                     | 1            | WL   |
|               | 12-Apr-24                    | 4            | WL   |
|               | 11-Nov-24                    | 1            | NWL  |
| WLMM028       | 15-Jan-24                    | 6            | WL   |
| WLMM029       | 19-Feb-24                    | 2            | WL   |



| Individual ID | Date of sighting (dd-mmm-yy) | Sighting No. | Area |
|---------------|------------------------------|--------------|------|
|               | 22-Mar-24                    | 3            | WL   |
| WLMM038       | 13-May-24                    | 1            | WL   |
|               | 12-Jul-24                    | 1            | WL   |
| WLMM039       | 12-Apr-24                    | 12           | WL   |
| WLMM042       | 13-Aug-24                    | 8            | WL   |
| WLMM043       | 2-Feb-24                     | 1            | WL   |
|               | 7-Aug-24                     | 3            | SWL  |
|               | 13-Aug-24                    | 7            | WL   |
| WLMM049       | 9-Sep-24                     | 2            | WL   |
| WLMM052       | 10-Jul-24                    | 3            | WL   |
|               | 10-Sep-24                    | 6            | WL   |
| WLMM055       | 10-Jul-24                    | 4            | WL   |
| WLMM056       | 23-Jan-24                    | 2            | SWL  |
|               | 19-Feb-24                    | 1            | WL   |
|               | 12-Apr-24                    | 3            | WL   |
|               |                              | 9            | WL   |
|               | 7-Aug-24                     | 2            | SWL  |
| WLMM058       | 2-Feb-24                     | 1            | WL   |
|               | 8-Aug-24                     | 3            | SWL  |
| WLMM063       | 20-Jun-24                    | 5            | SWL  |
|               | 12-Jul-24                    | 1            | WL   |
| WLMM065       | 7-Aug-24                     | 2            | SWL  |
|               | 23-Aug-24                    | 1            | WL   |
|               | 18-Oct-24                    | 1            | WL   |
|               |                              | 2            | WL   |
| WLMM067       | 15-Jan-24                    | 2            | WL   |
|               | 12-Apr-24                    | 12           | WL   |
|               | 13-Aug-24                    | 5            | WL   |
| WLMM068       | 15-Jan-24                    | 3            | WL   |
|               | 2-Feb-24                     | 1            | WL   |
|               | 12-Apr-24                    | 12           | WL   |
| WLMM070       | 18-Dec-24                    | 2            | SWL  |
| WLMM071       | 2-Feb-24                     | 1            | WL   |
|               | 6-May-24                     | 10           | SWL  |
|               | 10-Jul-24                    | 1            | WL   |
|               | 10-Sep-24                    | 5            | WL   |
| WLMM073       | 15-Jan-24                    | 6            | WL   |
|               | 5-Jun-24                     | 1            | WL   |
|               | 20-Jun-24                    | 4            | SWL  |
| WLMM077       | 9-Jul-24                     | 2            | SWL  |
|               |                              | 3            | SWL  |
|               | 12-Jul-24                    | 2            | WL   |
| WLMM079       | 2-Feb-24                     | 3            | WL   |
|               | 19-Feb-24                    | 1            | WL   |
|               | 23-Aug-24                    | 4            | WL   |
|               | 10-Sep-24                    | 9            | WL   |
| WLMM080       | 12-Apr-24                    | 1            | WL   |
|               | 17-Apr-24                    | 1            | WL   |
|               | 27-Nov-24                    | 3            | SWL  |
| WLMM082       | 13-Aug-24                    | 8            | WL   |

| Individual ID | Date of sighting (dd-mmm-yy) | Sighting No. | Area |
|---------------|------------------------------|--------------|------|
| WLMM083       | 10-Sep-24                    | 5            | WL   |
| WLMM091       | 9-Jul-24                     | 12           | SWL  |
| WLMM092       | 9-Jul-24                     | 12           | SWL  |
| WLMM102       | 4-Sep-24                     | 1            | NWL  |
| WLMM109       | 15-Jan-24                    | 6            | WL   |
|               | 10-Jul-24                    | 4            | WL   |
|               | 12-Jul-24                    | 3            | WL   |
|               | 10-Sep-24                    | 9            | WL   |
|               | 11-Sep-24                    | 8            | SWL  |
| WLMM111       | 12-Jul-24                    | 5            | WL   |
|               | 7-Aug-24                     | 2            | SWL  |
| WLMM113       | 9-Jul-24                     | 2            | SWL  |
| WLMM114       | 15-Jan-24                    | 8            | WL   |
|               | 23-Jan-24                    | 2            | SWL  |
|               | 19-Feb-24                    | 1            | WL   |
|               | 11-Jun-24                    | 4            | WL   |
|               | 9-Jul-24                     | 5            | SWL  |
|               | 12-Jul-24                    | 6            | WL   |
|               | 7-Aug-24                     | 2            | SWL  |
| WLMM118       | 12-Apr-24                    | 3            | WL   |
|               | 9-Jul-24                     | 2            | SWL  |
|               | 13-Aug-24                    | 5            | WL   |
|               | 3-Sep-24                     | 7            | SWL  |
| WLMM141       | 20-Jun-24                    | 5            | SWL  |
|               | 13-Aug-24                    | 5            | WL   |
|               | 11-Sep-24                    | 8            | SWL  |
| WLMM146       | 18-Dec-24                    | 2            | SWL  |
| WLMM147       | 2-Feb-24                     | 3            | WL   |
|               | 19-Feb-24                    | 1            | WL   |
|               | 23-Aug-24                    | 4            | WL   |
| WLMM150       | 22-Mar-24                    | 3            | WL   |
|               | 12-Apr-24                    | 9            | WL   |
| WLMM152       | 12-Apr-24                    | 5            | WL   |
| WLMM154       | 13-Aug-24                    | 4            | WL   |
|               | 10-Sep-24                    | 9            | WL   |
| WLMM159       | 15-Jan-24                    | 2            | WL   |
|               | 2-Feb-24                     | 3            | WL   |
|               | 17-Apr-24                    | 1            | WL   |
| WLMM161       | 10-Jul-24                    | 3            | WL   |
| WLMM162       | 15-Jan-24                    | 3            | WL   |
|               | 2-Feb-24                     | 1            | WL   |
|               | 12-Apr-24                    | 12           | WL   |
| WLMM163       | 12-Apr-24                    | 3            | WL   |
|               |                              | 4            | WL   |
|               |                              | 6            | WL   |
| WLMM168       | 23-Aug-24                    | 1            | WL   |
| WLMM178       | 13-May-24                    | 1            | WL   |
| WLMM192       | 15-Jan-24                    | 4            | WL   |
|               |                              | 6            | WL   |
|               |                              | 3            | WL   |

| Individual ID | Date of sighting (dd-mmm-yy) | Sighting No. | Area |
|---------------|------------------------------|--------------|------|
|               | 12-Apr-24                    | 12           | WL   |
|               | 20-Jun-24                    | 5            | SWL  |
|               | 13-Aug-24                    | 8            | WL   |
|               | 13-Dec-24                    | 1            | SWL  |
| WLMM195       | 12-Apr-24                    | 2            | WL   |
|               | 9-Sep-24                     | 5            | WL   |
| WLMM196       | 12-Apr-24                    | 2            | WL   |
|               | 23-Aug-24                    | 1            | WL   |
| WLMM197       | 12-Apr-24                    | 2            | WL   |
|               | 23-Aug-24                    | 1            | WL   |
| WLMM198       | 12-Apr-24                    | 2            | WL   |
| WLMM199       | 11-Jun-24                    | 4            | WL   |
| WLMM200       | 10-Jul-24                    | 8            | WL   |
|               | 7-Aug-24                     | 3            | SWL  |
|               | 18-Oct-24                    | 3            | WL   |
|               | 4-Dec-24                     | 6            | WL   |
| WLMM201       | 12-Jul-24                    | 6            | WL   |
|               | 13-Aug-24                    | 3            | WL   |
| WLMM202       | 23-Aug-24                    | 3            | WL   |
|               |                              | 4            | WL   |
| WLMM203       | 10-Sep-24                    | 6            | WL   |

## CWD Small Vessel Line-transect Survey

## Survey Effort Data

| DATE      | AREA | BEAU | KM SEARCHED | SEASON | VESSEL | TYPE          | P/S |
|-----------|------|------|-------------|--------|--------|---------------|-----|
| 09-Jan-24 | DB   | 2    | 0.3         | WINTER | 32166  | 3RS ET – POST | P   |
| 09-Jan-24 | DB   | 3    | 7.14        | WINTER | 32166  | 3RS ET – POST | P   |
| 09-Jan-24 | DB   | 2    | 2.11        | WINTER | 32166  | 3RS ET – POST | S   |
| 09-Jan-24 | DB   | 3    | 2.05        | WINTER | 32166  | 3RS ET – POST | S   |
| 09-Jan-24 | NEL  | 1    | 3.74        | WINTER | 32166  | 3RS ET – POST | P   |
| 09-Jan-24 | NEL  | 2    | 13.5        | WINTER | 32166  | 3RS ET – POST | P   |
| 09-Jan-24 | NEL  | 3    | 19.9        | WINTER | 32166  | 3RS ET – POST | P   |
| 09-Jan-24 | NEL  | 2    | 5.76        | WINTER | 32166  | 3RS ET – POST | S   |
| 09-Jan-24 | NEL  | 3    | 4.1         | WINTER | 32166  | 3RS ET – POST | S   |
| 10-Jan-24 | DB   | 3    | 7.05        | WINTER | 32166  | 3RS ET – POST | P   |
| 10-Jan-24 | DB   | 3    | 4.05        | WINTER | 32166  | 3RS ET – POST | S   |
| 10-Jan-24 | NEL  | 2    | 25.76       | WINTER | 32166  | 3RS ET – POST | P   |
| 10-Jan-24 | NEL  | 3    | 11.5        | WINTER | 32166  | 3RS ET – POST | P   |
| 10-Jan-24 | NEL  | 2    | 7.4         | WINTER | 32166  | 3RS ET – POST | S   |
| 10-Jan-24 | NEL  | 3    | 1.84        | WINTER | 32166  | 3RS ET – POST | S   |
| 11-Jan-24 | NWL  | 2    | 16.7        | WINTER | 32166  | 3RS ET – POST | P   |
| 11-Jan-24 | NWL  | 3    | 47.1        | WINTER | 32166  | 3RS ET – POST | P   |
| 11-Jan-24 | NWL  | 2    | 4.3         | WINTER | 32166  | 3RS ET – POST | S   |
| 11-Jan-24 | NWL  | 3    | 7.4         | WINTER | 32166  | 3RS ET – POST | S   |
| 15-Jan-24 | AW   | 2    | 4.96        | WINTER | 32166  | 3RS ET – POST | P   |
| 15-Jan-24 | WL   | 2    | 13.6        | WINTER | 32166  | 3RS ET – POST | P   |
| 15-Jan-24 | WL   | 3    | 2.16        | WINTER | 32166  | 3RS ET – POST | P   |
| 15-Jan-24 | WL   | 2    | 6.115       | WINTER | 32166  | 3RS ET – POST | S   |
| 15-Jan-24 | WL   | 3    | 2.73        | WINTER | 32166  | 3RS ET – POST | S   |
| 18-Jan-24 | SWL  | 2    | 39.882      | WINTER | 32166  | 3RS ET – POST | P   |
| 18-Jan-24 | SWL  | 3    | 13.265      | WINTER | 32166  | 3RS ET – POST | P   |
| 18-Jan-24 | SWL  | 2    | 14.298      | WINTER | 32166  | 3RS ET – POST | S   |
| 18-Jan-24 | SWL  | 3    | 2.155       | WINTER | 32166  | 3RS ET – POST | S   |
| 22-Jan-24 | AW   | 3    | 4.52        | WINTER | 32166  | 3RS ET – POST | P   |
| 22-Jan-24 | WL   | 3    | 10.76       | WINTER | 32166  | 3RS ET – POST | P   |
| 22-Jan-24 | WL   | 4    | 9.3         | WINTER | 32166  | 3RS ET – POST | P   |
| 22-Jan-24 | WL   | 3    | 6.24        | WINTER | 32166  | 3RS ET – POST | S   |
| 22-Jan-24 | WL   | 4    | 4.2         | WINTER | 32166  | 3RS ET – POST | S   |
| 23-Jan-24 | SWL  | 3    | 20.21       | WINTER | 32166  | 3RS ET – POST | P   |
| 23-Jan-24 | SWL  | 4    | 33.08       | WINTER | 32166  | 3RS ET – POST | P   |
| 23-Jan-24 | SWL  | 3    | 8.07        | WINTER | 32166  | 3RS ET – POST | S   |
| 23-Jan-24 | SWL  | 4    | 7.82        | WINTER | 32166  | 3RS ET – POST | S   |
| 25-Jan-24 | NWL  | 2    | 7.01        | WINTER | 32166  | 3RS ET – POST | P   |
| 25-Jan-24 | NWL  | 3    | 56.29       | WINTER | 32166  | 3RS ET – POST | P   |
| 25-Jan-24 | NWL  | 2    | 1.1         | WINTER | 32166  | 3RS ET – POST | S   |
| 25-Jan-24 | NWL  | 3    | 10.4        | WINTER | 32166  | 3RS ET – POST | S   |
| 02-Feb-24 | AW   | 1    | 4.56        | WINTER | 32166  | 3RS ET – POST | P   |
| 02-Feb-24 | WL   | 2    | 17.302      | WINTER | 32166  | 3RS ET – POST | P   |
| 02-Feb-24 | WL   | 2    | 11.421      | WINTER | 32166  | 3RS ET – POST | S   |
| 14-Feb-24 | SWL  | 2    | 13.69       | WINTER | 32166  | 3RS ET – POST | P   |
| 14-Feb-24 | SWL  | 3    | 41.49       | WINTER | 32166  | 3RS ET – POST | P   |
| 14-Feb-24 | SWL  | 2    | 5.56        | WINTER | 32166  | 3RS ET – POST | S   |
| 14-Feb-24 | SWL  | 3    | 10          | WINTER | 32166  | 3RS ET – POST | S   |

| DATE      | AREA | BEAU | KM SEARCHED | SEASON | VESSEL | TYPE          | P/S |
|-----------|------|------|-------------|--------|--------|---------------|-----|
| 15-Feb-24 | SWL  | 2    | 38.098      | WINTER | 32166  | 3RS ET – POST | P   |
| 15-Feb-24 | SWL  | 3    | 15.36       | WINTER | 32166  | 3RS ET – POST | P   |
| 15-Feb-24 | SWL  | 2    | 12.055      | WINTER | 32166  | 3RS ET – POST | S   |
| 15-Feb-24 | SWL  | 3    | 4.035       | WINTER | 32166  | 3RS ET – POST | S   |
| 19-Feb-24 | AW   | 2    | 4.61        | WINTER | 32166  | 3RS ET – POST | P   |
| 19-Feb-24 | WL   | 2    | 9.565       | WINTER | 32166  | 3RS ET – POST | P   |
| 19-Feb-24 | WL   | 3    | 9.77        | WINTER | 32166  | 3RS ET – POST | P   |
| 19-Feb-24 | WL   | 2    | 2.21        | WINTER | 32166  | 3RS ET – POST | S   |
| 19-Feb-24 | WL   | 3    | 8.195       | WINTER | 32166  | 3RS ET – POST | S   |
| 20-Feb-24 | NWL  | 3    | 51          | WINTER | 32166  | 3RS ET – POST | P   |
| 20-Feb-24 | NWL  | 4    | 13.2        | WINTER | 32166  | 3RS ET – POST | P   |
| 20-Feb-24 | NWL  | 3    | 7.5         | WINTER | 32166  | 3RS ET – POST | S   |
| 20-Feb-24 | NWL  | 4    | 3.8         | WINTER | 32166  | 3RS ET – POST | S   |
| 21-Feb-24 | NWL  | 2    | 58.4        | WINTER | 32166  | 3RS ET – POST | P   |
| 21-Feb-24 | NWL  | 3    | 5.3         | WINTER | 32166  | 3RS ET – POST | P   |
| 21-Feb-24 | NWL  | 2    | 9.7         | WINTER | 32166  | 3RS ET – POST | S   |
| 21-Feb-24 | NWL  | 3    | 1.7         | WINTER | 32166  | 3RS ET – POST | S   |
| 22-Feb-24 | DB   | 2    | 7.43        | WINTER | 32166  | 3RS ET – POST | P   |
| 22-Feb-24 | DB   | 2    | 3.77        | WINTER | 32166  | 3RS ET – POST | S   |
| 22-Feb-24 | NEL  | 2    | 7.55        | WINTER | 32166  | 3RS ET – POST | P   |
| 22-Feb-24 | NEL  | 3    | 29.15       | WINTER | 32166  | 3RS ET – POST | P   |
| 22-Feb-24 | NEL  | 2    | 1.7         | WINTER | 32166  | 3RS ET – POST | S   |
| 22-Feb-24 | NEL  | 3    | 8.6         | WINTER | 32166  | 3RS ET – POST | S   |
| 29-Feb-24 | DB   | 3    | 7.67        | WINTER | 32166  | 3RS ET – POST | P   |
| 29-Feb-24 | DB   | 3    | 4.23        | WINTER | 32166  | 3RS ET – POST | S   |
| 29-Feb-24 | NEL  | 2    | 15.31       | WINTER | 32166  | 3RS ET – POST | P   |
| 29-Feb-24 | NEL  | 3    | 21.95       | WINTER | 32166  | 3RS ET – POST | P   |
| 29-Feb-24 | NEL  | 2    | 2.84        | WINTER | 32166  | 3RS ET – POST | S   |
| 29-Feb-24 | NEL  | 3    | 6.8         | WINTER | 32166  | 3RS ET – POST | S   |
| 04-Mar-24 | DB   | 3    | 3.01        | SPRING | 32166  | 3RS ET – POST | P   |
| 04-Mar-24 | DB   | 4    | 4.62        | SPRING | 32166  | 3RS ET – POST | P   |
| 04-Mar-24 | DB   | 3    | 0.83        | SPRING | 32166  | 3RS ET – POST | S   |
| 04-Mar-24 | DB   | 4    | 2.84        | SPRING | 32166  | 3RS ET – POST | S   |
| 04-Mar-24 | NEL  | 2    | 2.3         | SPRING | 32166  | 3RS ET – POST | P   |
| 04-Mar-24 | NEL  | 3    | 34.85       | SPRING | 32166  | 3RS ET – POST | P   |
| 04-Mar-24 | NEL  | 3    | 10.05       | SPRING | 32166  | 3RS ET – POST | S   |
| 05-Mar-24 | SWL  | 2    | 39.66       | SPRING | 32166  | 3RS ET – POST | P   |
| 05-Mar-24 | SWL  | 3    | 13.9        | SPRING | 32166  | 3RS ET – POST | P   |
| 05-Mar-24 | SWL  | 2    | 15.44       | SPRING | 32166  | 3RS ET – POST | S   |
| 05-Mar-24 | SWL  | 3    | 0.8         | SPRING | 32166  | 3RS ET – POST | S   |
| 07-Mar-24 | DB   | 2    | 0.29        | SPRING | 32166  | 3RS ET – POST | P   |
| 07-Mar-24 | DB   | 3    | 6.71        | SPRING | 32166  | 3RS ET – POST | P   |
| 07-Mar-24 | DB   | 2    | 1.78        | SPRING | 32166  | 3RS ET – POST | S   |
| 07-Mar-24 | DB   | 3    | 2.12        | SPRING | 32166  | 3RS ET – POST | S   |
| 07-Mar-24 | NEL  | 2    | 33.7        | SPRING | 32166  | 3RS ET – POST | P   |
| 07-Mar-24 | NEL  | 3    | 3.5         | SPRING | 32166  | 3RS ET – POST | P   |
| 07-Mar-24 | NEL  | 2    | 7.7         | SPRING | 32166  | 3RS ET – POST | S   |
| 07-Mar-24 | NEL  | 3    | 2.1         | SPRING | 32166  | 3RS ET – POST | S   |
| 18-Mar-24 | SWL  | 2    | 18.57       | SPRING | 32166  | 3RS ET – POST | P   |

| DATE      | AREA | BEAU | KM SEARCHED | SEASON | VESSEL | TYPE          | P/S |
|-----------|------|------|-------------|--------|--------|---------------|-----|
| 18-Mar-24 | SWL  | 3    | 35.5        | SPRING | 32166  | 3RS ET – POST | P   |
| 18-Mar-24 | SWL  | 2    | 3.86        | SPRING | 32166  | 3RS ET – POST | S   |
| 18-Mar-24 | SWL  | 3    | 11.6        | SPRING | 32166  | 3RS ET – POST | S   |
| 19-Mar-24 | AW   | 3    | 4.67        | SPRING | 32166  | 3RS ET – POST | P   |
| 19-Mar-24 | WL   | 3    | 8.9         | SPRING | 32166  | 3RS ET – POST | P   |
| 19-Mar-24 | WL   | 4    | 10.4        | SPRING | 32166  | 3RS ET – POST | P   |
| 19-Mar-24 | WL   | 3    | 6.9         | SPRING | 32166  | 3RS ET – POST | S   |
| 19-Mar-24 | WL   | 4    | 5.1         | SPRING | 32166  | 3RS ET – POST | S   |
| 20-Mar-24 | NWL  | 2    | 32.1        | SPRING | 32166  | 3RS ET – POST | P   |
| 20-Mar-24 | NWL  | 3    | 31.6        | SPRING | 32166  | 3RS ET – POST | P   |
| 20-Mar-24 | NWL  | 2    | 5.5         | SPRING | 32166  | 3RS ET – POST | S   |
| 20-Mar-24 | NWL  | 3    | 6.5         | SPRING | 32166  | 3RS ET – POST | S   |
| 21-Mar-24 | NWL  | 2    | 9.03        | SPRING | 32166  | 3RS ET – POST | P   |
| 21-Mar-24 | NWL  | 3    | 52.47       | SPRING | 32166  | 3RS ET – POST | P   |
| 21-Mar-24 | NWL  | 2    | 2.6         | SPRING | 32166  | 3RS ET – POST | S   |
| 21-Mar-24 | NWL  | 3    | 10.9        | SPRING | 32166  | 3RS ET – POST | S   |
| 22-Mar-24 | AW   | 2    | 3.52        | SPRING | 32166  | 3RS ET – POST | P   |
| 22-Mar-24 | AW   | 3    | 1.04        | SPRING | 32166  | 3RS ET – POST | P   |
| 22-Mar-24 | WL   | 3    | 13.513      | SPRING | 32166  | 3RS ET – POST | P   |
| 22-Mar-24 | WL   | 4    | 5.24        | SPRING | 32166  | 3RS ET – POST | P   |
| 22-Mar-24 | WL   | 2    | 0.36        | SPRING | 32166  | 3RS ET – POST | S   |
| 22-Mar-24 | WL   | 3    | 5.536       | SPRING | 32166  | 3RS ET – POST | S   |
| 22-Mar-24 | WL   | 4    | 3.641       | SPRING | 32166  | 3RS ET – POST | S   |
| 05-Apr-24 | SWL  | 3    | 42.93       | SPRING | 32166  | 3RS ET – POST | P   |
| 05-Apr-24 | SWL  | 4    | 9.37        | SPRING | 32166  | 3RS ET – POST | P   |
| 05-Apr-24 | SWL  | 3    | 13          | SPRING | 32166  | 3RS ET – POST | S   |
| 05-Apr-24 | SWL  | 4    | 3.5         | SPRING | 32166  | 3RS ET – POST | S   |
| 10-Apr-24 | DB   | 2    | 0.71        | SPRING | 32166  | 3RS ET – POST | P   |
| 10-Apr-24 | DB   | 3    | 6.77        | SPRING | 32166  | 3RS ET – POST | P   |
| 10-Apr-24 | DB   | 3    | 3.92        | SPRING | 32166  | 3RS ET – POST | S   |
| 10-Apr-24 | NEL  | 3    | 36.77       | SPRING | 32166  | 3RS ET – POST | P   |
| 10-Apr-24 | NEL  | 3    | 10.03       | SPRING | 32166  | 3RS ET – POST | S   |
| 12-Apr-24 | AW   | 1    | 4.8         | SPRING | 32166  | 3RS ET – POST | P   |
| 12-Apr-24 | WL   | 1    | 5.41        | SPRING | 32166  | 3RS ET – POST | P   |
| 12-Apr-24 | WL   | 2    | 7.988       | SPRING | 32166  | 3RS ET – POST | P   |
| 12-Apr-24 | WL   | 3    | 4.655       | SPRING | 32166  | 3RS ET – POST | P   |
| 12-Apr-24 | WL   | 1    | 2.42        | SPRING | 32166  | 3RS ET – POST | S   |
| 12-Apr-24 | WL   | 2    | 3.873       | SPRING | 32166  | 3RS ET – POST | S   |
| 12-Apr-24 | WL   | 3    | 3.109       | SPRING | 32166  | 3RS ET – POST | S   |
| 15-Apr-24 | NWL  | 2    | 64.2        | SPRING | 32166  | 3RS ET – POST | P   |
| 15-Apr-24 | NWL  | 2    | 11.5        | SPRING | 32166  | 3RS ET – POST | S   |
| 17-Apr-24 | AW   | 3    | 4.76        | SPRING | 32166  | 3RS ET – POST | P   |
| 17-Apr-24 | WL   | 3    | 17.33       | SPRING | 32166  | 3RS ET – POST | P   |
| 17-Apr-24 | WL   | 4    | 3.17        | SPRING | 32166  | 3RS ET – POST | P   |
| 17-Apr-24 | WL   | 3    | 9.88        | SPRING | 32166  | 3RS ET – POST | S   |
| 18-Apr-24 | DB   | 2    | 2.91        | SPRING | 32166  | 3RS ET – POST | P   |
| 18-Apr-24 | DB   | 3    | 5.15        | SPRING | 32166  | 3RS ET – POST | P   |
| 18-Apr-24 | DB   | 2    | 2.41        | SPRING | 32166  | 3RS ET – POST | S   |
| 18-Apr-24 | DB   | 3    | 0.93        | SPRING | 32166  | 3RS ET – POST | S   |

| DATE      | AREA | BEAU | KM SEARCHED | SEASON | VESSEL | TYPE          | P/S |
|-----------|------|------|-------------|--------|--------|---------------|-----|
| 18-Apr-24 | NEL  | 2    | 11.68       | SPRING | 32166  | 3RS ET – POST | P   |
| 18-Apr-24 | NEL  | 3    | 12.97       | SPRING | 32166  | 3RS ET – POST | P   |
| 18-Apr-24 | NEL  | 4    | 12.3        | SPRING | 32166  | 3RS ET – POST | P   |
| 18-Apr-24 | NEL  | 2    | 2.77        | SPRING | 32166  | 3RS ET – POST | S   |
| 18-Apr-24 | NEL  | 3    | 3.18        | SPRING | 32166  | 3RS ET – POST | S   |
| 18-Apr-24 | NEL  | 4    | 4.2         | SPRING | 32166  | 3RS ET – POST | S   |
| 23-Apr-24 | SWL  | 2    | 22.48       | SPRING | 32166  | 3RS ET – POST | P   |
| 23-Apr-24 | SWL  | 3    | 22          | SPRING | 32166  | 3RS ET – POST | P   |
| 23-Apr-24 | SWL  | 4    | 1           | SPRING | 32166  | 3RS ET – POST | P   |
| 23-Apr-24 | SWL  | 2    | 4.62        | SPRING | 32166  | 3RS ET – POST | S   |
| 23-Apr-24 | SWL  | 3    | 16.1        | SPRING | 32166  | 3RS ET – POST | S   |
| 23-Apr-24 | SWL  | 4    | 3.9         | SPRING | 32166  | 3RS ET – POST | S   |
| 26-Apr-24 | NWL  | 2    | 42.4        | SPRING | 32166  | 3RS ET – POST | P   |
| 26-Apr-24 | NWL  | 3    | 21.3        | SPRING | 32166  | 3RS ET – POST | P   |
| 26-Apr-24 | NWL  | 2    | 9.4         | SPRING | 32166  | 3RS ET – POST | S   |
| 26-Apr-24 | NWL  | 3    | 2.3         | SPRING | 32166  | 3RS ET – POST | S   |
| 06-May-24 | SWL  | 2    | 52.706      | SPRING | 32166  | 3RS ET – POST | P   |
| 06-May-24 | SWL  | 2    | 13.915      | SPRING | 32166  | 3RS ET – POST | S   |
| 08-May-24 | NEL  | 2    | 37.14       | SPRING | 32166  | 3RS ET – POST | P   |
| 08-May-24 | NEL  | 2    | 9.66        | SPRING | 32166  | 3RS ET – POST | S   |
| 13-May-24 | AW   | 2    | 5.01        | SPRING | 32166  | 3RS ET – POST | P   |
| 13-May-24 | WL   | 2    | 10.926      | SPRING | 32166  | 3RS ET – POST | P   |
| 13-May-24 | WL   | 3    | 8.53        | SPRING | 32166  | 3RS ET – POST | P   |
| 13-May-24 | WL   | 2    | 7.933       | SPRING | 32166  | 3RS ET – POST | S   |
| 13-May-24 | WL   | 3    | 2.26        | SPRING | 32166  | 3RS ET – POST | S   |
| 13-May-24 | WL   | 4    | 0.9         | SPRING | 32166  | 3RS ET – POST | S   |
| 14-May-24 | NWL  | 2    | 31.9        | SPRING | 32166  | 3RS ET – POST | P   |
| 14-May-24 | NWL  | 3    | 30.24       | SPRING | 32166  | 3RS ET – POST | P   |
| 14-May-24 | NWL  | 2    | 8.87        | SPRING | 32166  | 3RS ET – POST | S   |
| 14-May-24 | NWL  | 3    | 3.79        | SPRING | 32166  | 3RS ET – POST | S   |
| 16-May-24 | NEL  | 2    | 1.2         | SPRING | 32166  | 3RS ET – POST | P   |
| 16-May-24 | NEL  | 3    | 18.4        | SPRING | 32166  | 3RS ET – POST | P   |
| 16-May-24 | NEL  | 4    | 17.42       | SPRING | 32166  | 3RS ET – POST | P   |
| 16-May-24 | NEL  | 3    | 7.1         | SPRING | 32166  | 3RS ET – POST | S   |
| 16-May-24 | NEL  | 4    | 2.88        | SPRING | 32166  | 3RS ET – POST | S   |
| 17-May-24 | NWL  | 2    | 61.89       | SPRING | 32166  | 3RS ET – POST | P   |
| 17-May-24 | NWL  | 3    | 1.71        | SPRING | 32166  | 3RS ET – POST | P   |
| 17-May-24 | NWL  | 2    | 11.6        | SPRING | 32166  | 3RS ET – POST | S   |
| 27-May-24 | AW   | 3    | 1.11        | SPRING | 32166  | 3RS ET – POST | P   |
| 27-May-24 | AW   | 4    | 3.73        | SPRING | 32166  | 3RS ET – POST | P   |
| 27-May-24 | WL   | 2    | 1.04        | SPRING | 32166  | 3RS ET – POST | P   |
| 27-May-24 | WL   | 3    | 18.72       | SPRING | 32166  | 3RS ET – POST | P   |
| 27-May-24 | WL   | 2    | 0.9         | SPRING | 32166  | 3RS ET – POST | S   |
| 27-May-24 | WL   | 3    | 8.31        | SPRING | 32166  | 3RS ET – POST | S   |
| 27-May-24 | WL   | 4    | 1.3         | SPRING | 32166  | 3RS ET – POST | S   |
| 28-May-24 | SWL  | 2    | 42.33       | SPRING | 32166  | 3RS ET – POST | P   |
| 28-May-24 | SWL  | 3    | 9.6         | SPRING | 32166  | 3RS ET – POST | P   |
| 28-May-24 | SWL  | 2    | 15.67       | SPRING | 32166  | 3RS ET – POST | S   |
| 28-May-24 | SWL  | 3    | 2.3         | SPRING | 32166  | 3RS ET – POST | S   |

| DATE      | AREA | BEAU | KM SEARCHED | SEASON | VESSEL | TYPE          | P/S |
|-----------|------|------|-------------|--------|--------|---------------|-----|
| 05-Jun-24 | AW   | 3    | 4.62        | SUMMER | 32166  | 3RS ET – POST | P   |
| 05-Jun-24 | WL   | 2    | 8.54        | SUMMER | 32166  | 3RS ET – POST | P   |
| 05-Jun-24 | WL   | 3    | 10.78       | SUMMER | 32166  | 3RS ET – POST | P   |
| 05-Jun-24 | WL   | 4    | 1.2         | SUMMER | 32166  | 3RS ET – POST | P   |
| 05-Jun-24 | WL   | 2    | 4.97        | SUMMER | 32166  | 3RS ET – POST | S   |
| 05-Jun-24 | WL   | 3    | 4.29        | SUMMER | 32166  | 3RS ET – POST | S   |
| 05-Jun-24 | WL   | 4    | 0.4         | SUMMER | 32166  | 3RS ET – POST | S   |
| 11-Jun-24 | AW   | 2    | 1.97        | SUMMER | 32166  | 3RS ET – POST | P   |
| 11-Jun-24 | AW   | 3    | 2.76        | SUMMER | 32166  | 3RS ET – POST | P   |
| 11-Jun-24 | WL   | 3    | 21.783      | SUMMER | 32166  | 3RS ET – POST | P   |
| 11-Jun-24 | WL   | 3    | 7.979       | SUMMER | 32166  | 3RS ET – POST | S   |
| 12-Jun-24 | SWL  | 2    | 5.5         | SUMMER | 32166  | 3RS ET – POST | P   |
| 12-Jun-24 | SWL  | 3    | 47.94       | SUMMER | 32166  | 3RS ET – POST | P   |
| 12-Jun-24 | SWL  | 2    | 3.9         | SUMMER | 32166  | 3RS ET – POST | S   |
| 12-Jun-24 | SWL  | 3    | 12.36       | SUMMER | 32166  | 3RS ET – POST | S   |
| 13-Jun-24 | DB   | 3    | 7.43        | SUMMER | 32166  | 3RS ET – POST | P   |
| 13-Jun-24 | DB   | 3    | 3.97        | SUMMER | 32166  | 3RS ET – POST | S   |
| 13-Jun-24 | NEL  | 2    | 34.58       | SUMMER | 32166  | 3RS ET – POST | P   |
| 13-Jun-24 | NEL  | 3    | 2.8         | SUMMER | 32166  | 3RS ET – POST | P   |
| 13-Jun-24 | NEL  | 2    | 9.92        | SUMMER | 32166  | 3RS ET – POST | S   |
| 14-Jun-24 | DB   | 2    | 0.43        | SUMMER | 32166  | 3RS ET – POST | P   |
| 14-Jun-24 | DB   | 3    | 7.14        | SUMMER | 32166  | 3RS ET – POST | P   |
| 14-Jun-24 | DB   | 2    | 2.93        | SUMMER | 32166  | 3RS ET – POST | S   |
| 14-Jun-24 | DB   | 3    | 1.2         | SUMMER | 32166  | 3RS ET – POST | S   |
| 14-Jun-24 | NEL  | 2    | 30.4        | SUMMER | 32166  | 3RS ET – POST | P   |
| 14-Jun-24 | NEL  | 3    | 6.89        | SUMMER | 32166  | 3RS ET – POST | P   |
| 14-Jun-24 | NEL  | 2    | 8.31        | SUMMER | 32166  | 3RS ET – POST | S   |
| 14-Jun-24 | NEL  | 3    | 1.9         | SUMMER | 32166  | 3RS ET – POST | S   |
| 20-Jun-24 | SWL  | 2    | 35.592      | SUMMER | 32166  | 3RS ET – POST | P   |
| 20-Jun-24 | SWL  | 3    | 15.84       | SUMMER | 32166  | 3RS ET – POST | P   |
| 20-Jun-24 | SWL  | 2    | 13.11       | SUMMER | 32166  | 3RS ET – POST | S   |
| 20-Jun-24 | SWL  | 3    | 3.12        | SUMMER | 32166  | 3RS ET – POST | S   |
| 21-Jun-24 | NWL  | 2    | 34          | SUMMER | 32166  | 3RS ET – POST | P   |
| 21-Jun-24 | NWL  | 3    | 30          | SUMMER | 32166  | 3RS ET – POST | P   |
| 21-Jun-24 | NWL  | 2    | 5.2         | SUMMER | 32166  | 3RS ET – POST | S   |
| 21-Jun-24 | NWL  | 3    | 6.1         | SUMMER | 32166  | 3RS ET – POST | S   |
| 25-Jun-24 | NWL  | 2    | 4.9         | SUMMER | 32166  | 3RS ET – POST | P   |
| 25-Jun-24 | NWL  | 3    | 59.21       | SUMMER | 32166  | 3RS ET – POST | P   |
| 25-Jun-24 | NWL  | 3    | 11.49       | SUMMER | 32166  | 3RS ET – POST | S   |
| 09-Jul-24 | SWL  | 2    | 42.763      | SUMMER | 32166  | 3RS ET – POST | P   |
| 09-Jul-24 | SWL  | 3    | 6.35        | SUMMER | 32166  | 3RS ET – POST | P   |
| 09-Jul-24 | SWL  | 2    | 13.392      | SUMMER | 32166  | 3RS ET – POST | S   |
| 09-Jul-24 | SWL  | 3    | 1.21        | SUMMER | 32166  | 3RS ET – POST | S   |
| 10-Jul-24 | AW   | 2    | 4.66        | SUMMER | 32166  | 3RS ET – POST | P   |
| 10-Jul-24 | WL   | 2    | 7.824       | SUMMER | 32166  | 3RS ET – POST | P   |
| 10-Jul-24 | WL   | 3    | 10.296      | SUMMER | 32166  | 3RS ET – POST | P   |
| 10-Jul-24 | WL   | 2    | 3.226       | SUMMER | 32166  | 3RS ET – POST | S   |
| 10-Jul-24 | WL   | 3    | 6.112       | SUMMER | 32166  | 3RS ET – POST | S   |
| 11-Jul-24 | SWL  | 2    | 37.688      | SUMMER | 32166  | 3RS ET – POST | P   |



| DATE      | AREA | BEAU | KM SEARCHED | SEASON | VESSEL | TYPE          | P/S |
|-----------|------|------|-------------|--------|--------|---------------|-----|
| 11-Jul-24 | SWL  | 3    | 14.317      | SUMMER | 32166  | 3RS ET – POST | P   |
| 11-Jul-24 | SWL  | 2    | 9.23        | SUMMER | 32166  | 3RS ET – POST | S   |
| 11-Jul-24 | SWL  | 3    | 4.815       | SUMMER | 32166  | 3RS ET – POST | S   |
| 11-Jul-24 | SWL  | 4    | 1.3         | SUMMER | 32166  | 3RS ET – POST | S   |
| 12-Jul-24 | AW   | 2    | 4.77        | SUMMER | 32166  | 3RS ET – POST | P   |
| 12-Jul-24 | WL   | 2    | 7.46        | SUMMER | 32166  | 3RS ET – POST | P   |
| 12-Jul-24 | WL   | 3    | 10.856      | SUMMER | 32166  | 3RS ET – POST | P   |
| 12-Jul-24 | WL   | 2    | 2.38        | SUMMER | 32166  | 3RS ET – POST | S   |
| 12-Jul-24 | WL   | 3    | 6.849       | SUMMER | 32166  | 3RS ET – POST | S   |
| 15-Jul-24 | DB   | 2    | 4.95        | SUMMER | 32166  | 3RS ET – POST | P   |
| 15-Jul-24 | DB   | 3    | 2.16        | SUMMER | 32166  | 3RS ET – POST | P   |
| 15-Jul-24 | DB   | 2    | 4.59        | SUMMER | 32166  | 3RS ET – POST | S   |
| 15-Jul-24 | NEL  | 2    | 36.94       | SUMMER | 32166  | 3RS ET – POST | P   |
| 15-Jul-24 | NEL  | 2    | 9.76        | SUMMER | 32166  | 3RS ET – POST | S   |
| 16-Jul-24 | DB   | 2    | 3.1         | SUMMER | 32166  | 3RS ET – POST | P   |
| 16-Jul-24 | DB   | 3    | 4.09        | SUMMER | 32166  | 3RS ET – POST | P   |
| 16-Jul-24 | DB   | 3    | 3.91        | SUMMER | 32166  | 3RS ET – POST | S   |
| 16-Jul-24 | NEL  | 2    | 28.37       | SUMMER | 32166  | 3RS ET – POST | P   |
| 16-Jul-24 | NEL  | 3    | 5.2         | SUMMER | 32166  | 3RS ET – POST | P   |
| 16-Jul-24 | NEL  | 4    | 3.29        | SUMMER | 32166  | 3RS ET – POST | P   |
| 16-Jul-24 | NEL  | 2    | 9.06        | SUMMER | 32166  | 3RS ET – POST | S   |
| 16-Jul-24 | NEL  | 3    | 0.9         | SUMMER | 32166  | 3RS ET – POST | S   |
| 18-Jul-24 | NWL  | 2    | 4.9         | SUMMER | 32166  | 3RS ET – POST | P   |
| 18-Jul-24 | NWL  | 3    | 55.8        | SUMMER | 32166  | 3RS ET – POST | P   |
| 18-Jul-24 | NWL  | 4    | 3           | SUMMER | 32166  | 3RS ET – POST | P   |
| 18-Jul-24 | NWL  | 2    | 0.9         | SUMMER | 32166  | 3RS ET – POST | S   |
| 18-Jul-24 | NWL  | 3    | 10.4        | SUMMER | 32166  | 3RS ET – POST | S   |
| 31-Jul-24 | NWL  | 2    | 3           | SUMMER | 32166  | 3RS ET – POST | P   |
| 31-Jul-24 | NWL  | 3    | 37.1        | SUMMER | 32166  | 3RS ET – POST | P   |
| 31-Jul-24 | NWL  | 4    | 23          | SUMMER | 32166  | 3RS ET – POST | P   |
| 31-Jul-24 | NWL  | 3    | 8.2         | SUMMER | 32166  | 3RS ET – POST | S   |
| 31-Jul-24 | NWL  | 4    | 3.1         | SUMMER | 32166  | 3RS ET – POST | S   |
| 07-Aug-24 | SWL  | 2    | 52.07       | SUMMER | 32166  | 3RS ET – POST | P   |
| 07-Aug-24 | SWL  | 2    | 15.46       | SUMMER | 32166  | 3RS ET – POST | S   |
| 08-Aug-24 | SWL  | 2    | 11.51       | SUMMER | 32166  | 3RS ET – POST | P   |
| 08-Aug-24 | SWL  | 3    | 42.32       | SUMMER | 32166  | 3RS ET – POST | P   |
| 08-Aug-24 | SWL  | 2    | 2.4         | SUMMER | 32166  | 3RS ET – POST | S   |
| 08-Aug-24 | SWL  | 3    | 12.57       | SUMMER | 32166  | 3RS ET – POST | S   |
| 12-Aug-24 | NWL  | 2    | 11.6        | SUMMER | 32166  | 3RS ET – POST | P   |
| 12-Aug-24 | NWL  | 3    | 52.5        | SUMMER | 32166  | 3RS ET – POST | P   |
| 12-Aug-24 | NWL  | 2    | 6.7         | SUMMER | 32166  | 3RS ET – POST | S   |
| 12-Aug-24 | NWL  | 3    | 5.1         | SUMMER | 32166  | 3RS ET – POST | S   |
| 13-Aug-24 | AW   | 2    | 4.61        | SUMMER | 32166  | 3RS ET – POST | P   |
| 13-Aug-24 | WL   | 2    | 16.055      | SUMMER | 32166  | 3RS ET – POST | P   |
| 13-Aug-24 | WL   | 2    | 7.193       | SUMMER | 32166  | 3RS ET – POST | S   |
| 14-Aug-24 | NWL  | 2    | 37.1        | SUMMER | 32166  | 3RS ET – POST | P   |
| 14-Aug-24 | NWL  | 3    | 19.82       | SUMMER | 32166  | 3RS ET – POST | P   |
| 14-Aug-24 | NWL  | 4    | 6.88        | SUMMER | 32166  | 3RS ET – POST | P   |
| 14-Aug-24 | NWL  | 2    | 7.4         | SUMMER | 32166  | 3RS ET – POST | S   |

| DATE      | AREA | BEAU | KM SEARCHED | SEASON | VESSEL | TYPE          | P/S |
|-----------|------|------|-------------|--------|--------|---------------|-----|
| 14-Aug-24 | NWL  | 3    | 4.2         | SUMMER | 32166  | 3RS ET – POST | S   |
| 15-Aug-24 | DB   | 2    | 4.68        | SUMMER | 32166  | 3RS ET – POST | P   |
| 15-Aug-24 | DB   | 3    | 2.69        | SUMMER | 32166  | 3RS ET – POST | P   |
| 15-Aug-24 | DB   | 2    | 3.93        | SUMMER | 32166  | 3RS ET – POST | S   |
| 15-Aug-24 | NEL  | 2    | 20.02       | SUMMER | 32166  | 3RS ET – POST | P   |
| 15-Aug-24 | NEL  | 3    | 16.3        | SUMMER | 32166  | 3RS ET – POST | P   |
| 15-Aug-24 | NEL  | 4    | 1.4         | SUMMER | 32166  | 3RS ET – POST | P   |
| 15-Aug-24 | NEL  | 2    | 6.88        | SUMMER | 32166  | 3RS ET – POST | S   |
| 15-Aug-24 | NEL  | 3    | 2           | SUMMER | 32166  | 3RS ET – POST | S   |
| 15-Aug-24 | NEL  | 4    | 0.9         | SUMMER | 32166  | 3RS ET – POST | S   |
| 20-Aug-24 | DB   | 3    | 2.82        | SUMMER | 32166  | 3RS ET – POST | P   |
| 20-Aug-24 | DB   | 4    | 5.76        | SUMMER | 32166  | 3RS ET – POST | P   |
| 20-Aug-24 | DB   | 3    | 1.01        | SUMMER | 32166  | 3RS ET – POST | S   |
| 20-Aug-24 | DB   | 4    | 1.61        | SUMMER | 32166  | 3RS ET – POST | S   |
| 20-Aug-24 | NEL  | 1    | 0.2         | SUMMER | 32166  | 3RS ET – POST | P   |
| 20-Aug-24 | NEL  | 2    | 31.25       | SUMMER | 32166  | 3RS ET – POST | P   |
| 20-Aug-24 | NEL  | 3    | 5.9         | SUMMER | 32166  | 3RS ET – POST | P   |
| 20-Aug-24 | NEL  | 1    | 1.2         | SUMMER | 32166  | 3RS ET – POST | S   |
| 20-Aug-24 | NEL  | 2    | 8.65        | SUMMER | 32166  | 3RS ET – POST | S   |
| 23-Aug-24 | AW   | 2    | 5.13        | SUMMER | 32166  | 3RS ET – POST | P   |
| 23-Aug-24 | WL   | 2    | 18.156      | SUMMER | 32166  | 3RS ET – POST | P   |
| 23-Aug-24 | WL   | 2    | 9.121       | SUMMER | 32166  | 3RS ET – POST | S   |
| 03-Sep-24 | SWL  | 1    | 4.098       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 03-Sep-24 | SWL  | 2    | 36.22       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 03-Sep-24 | SWL  | 3    | 9.82        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 03-Sep-24 | SWL  | 1    | 1.123       | AUTUMN | 32166  | 3RS ET – POST | S   |
| 03-Sep-24 | SWL  | 2    | 8.545       | AUTUMN | 32166  | 3RS ET – POST | S   |
| 03-Sep-24 | SWL  | 3    | 6.75        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 04-Sep-24 | NWL  | 2    | 63.65       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 04-Sep-24 | NWL  | 2    | 12.05       | AUTUMN | 32166  | 3RS ET – POST | S   |
| 09-Sep-24 | AW   | 2    | 4.94        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 09-Sep-24 | WL   | 2    | 8.778       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 09-Sep-24 | WL   | 3    | 9.38        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 09-Sep-24 | WL   | 2    | 4.16        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 09-Sep-24 | WL   | 3    | 6.092       | AUTUMN | 32166  | 3RS ET – POST | S   |
| 10-Sep-24 | AW   | 2    | 2.29        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 10-Sep-24 | AW   | 3    | 1.54        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 10-Sep-24 | WL   | 2    | 16.153      | AUTUMN | 32166  | 3RS ET – POST | P   |
| 10-Sep-24 | WL   | 2    | 9.788       | AUTUMN | 32166  | 3RS ET – POST | S   |
| 11-Sep-24 | SWL  | 2    | 51.813      | AUTUMN | 32166  | 3RS ET – POST | P   |
| 11-Sep-24 | SWL  | 2    | 16.845      | AUTUMN | 32166  | 3RS ET – POST | S   |
| 19-Sep-24 | DB   | 2    | 7.52        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 19-Sep-24 | DB   | 2    | 3.53        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 19-Sep-24 | DB   | 3    | 0.15        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 19-Sep-24 | NEL  | 2    | 16.71       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 19-Sep-24 | NEL  | 3    | 20.6        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 19-Sep-24 | NEL  | 2    | 8.71        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 19-Sep-24 | NEL  | 3    | 0.98        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 24-Sep-24 | DB   | 2    | 7.3         | AUTUMN | 32166  | 3RS ET – POST | P   |

| DATE      | AREA | BEAU | KM SEARCHED | SEASON | VESSEL | TYPE          | P/S |
|-----------|------|------|-------------|--------|--------|---------------|-----|
| 24-Sep-24 | DB   | 2    | 4           | AUTUMN | 32166  | 3RS ET – POST | S   |
| 24-Sep-24 | NEL  | 1    | 1.1         | AUTUMN | 32166  | 3RS ET – POST | P   |
| 24-Sep-24 | NEL  | 2    | 36.12       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 24-Sep-24 | NEL  | 1    | 0.5         | AUTUMN | 32166  | 3RS ET – POST | S   |
| 24-Sep-24 | NEL  | 2    | 9.78        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 25-Sep-24 | NWL  | 2    | 56.4        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 25-Sep-24 | NWL  | 3    | 7.6         | AUTUMN | 32166  | 3RS ET – POST | P   |
| 25-Sep-24 | NWL  | 2    | 11.6        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 07-Oct-24 | SWL  | 2    | 51.624      | AUTUMN | 32166  | 3RS ET – POST | P   |
| 07-Oct-24 | SWL  | 2    | 15.399      | AUTUMN | 32166  | 3RS ET – POST | S   |
| 08-Oct-24 | NWL  | 3    | 60.2        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 08-Oct-24 | NWL  | 4    | 4           | AUTUMN | 32166  | 3RS ET – POST | P   |
| 08-Oct-24 | NWL  | 3    | 11.6        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 10-Oct-24 | DB   | 2    | 7.38        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 10-Oct-24 | DB   | 2    | 3.82        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 10-Oct-24 | NEL  | 2    | 36.59       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 10-Oct-24 | NEL  | 2    | 10.31       | AUTUMN | 32166  | 3RS ET – POST | S   |
| 15-Oct-24 | NWL  | 4    | 10.8        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 15-Oct-24 | NWL  | 2    | 34.513      | AUTUMN | 32166  | 3RS ET – POST | P   |
| 15-Oct-24 | NWL  | 3    | 12.07       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 15-Oct-24 | NWL  | 2    | 6.207       | AUTUMN | 32166  | 3RS ET – POST | S   |
| 15-Oct-24 | NWL  | 4    | 11.76       | AUTUMN | 32166  | 3RS ET – POST | S   |
| 17-Oct-24 | DB   | 2    | 1.91        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 17-Oct-24 | DB   | 3    | 5.39        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 17-Oct-24 | DB   | 2    | 0.78        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 17-Oct-24 | DB   | 3    | 3.52        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 17-Oct-24 | NEL  | 2    | 3.61        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 17-Oct-24 | NEL  | 3    | 33.2        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 17-Oct-24 | NEL  | 2    | 2.82        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 17-Oct-24 | NEL  | 3    | 6.87        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 18-Oct-24 | AW   | 3    | 4.75        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 18-Oct-24 | WL   | 2    | 0.61        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 18-Oct-24 | WL   | 3    | 12.068      | AUTUMN | 32166  | 3RS ET – POST | P   |
| 18-Oct-24 | WL   | 4    | 6.06        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 18-Oct-24 | WL   | 2    | 1.07        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 18-Oct-24 | WL   | 3    | 8.742       | AUTUMN | 32166  | 3RS ET – POST | S   |
| 18-Oct-24 | WL   | 4    | 2.18        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 18-Oct-24 | WL   | 5    | 1.81        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 22-Oct-24 | SWL  | 2    | 24.158      | AUTUMN | 32166  | 3RS ET – POST | P   |
| 22-Oct-24 | SWL  | 3    | 21.86       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 22-Oct-24 | SWL  | 4    | 7.6         | AUTUMN | 32166  | 3RS ET – POST | P   |
| 22-Oct-24 | SWL  | 2    | 9.116       | AUTUMN | 32166  | 3RS ET – POST | S   |
| 22-Oct-24 | SWL  | 3    | 3.6         | AUTUMN | 32166  | 3RS ET – POST | S   |
| 22-Oct-24 | SWL  | 4    | 3.4         | AUTUMN | 32166  | 3RS ET – POST | S   |
| 24-Oct-24 | AW   | 3    | 4.74        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 24-Oct-24 | WL   | 3    | 2.46        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 24-Oct-24 | WL   | 4    | 7.43        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 24-Oct-24 | WL   | 5    | 10          | AUTUMN | 32166  | 3RS ET – POST | P   |
| 24-Oct-24 | WL   | 3    | 1.32        | AUTUMN | 32166  | 3RS ET – POST | S   |

| DATE      | AREA | BEAU | KM SEARCHED | SEASON | VESSEL | TYPE          | P/S |
|-----------|------|------|-------------|--------|--------|---------------|-----|
| 24-Oct-24 | WL   | 4    | 5.49        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 24-Oct-24 | WL   | 5    | 3.7         | AUTUMN | 32166  | 3RS ET – POST | S   |
| 08-Nov-24 | NWL  | 3    | 60.81       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 08-Nov-24 | NWL  | 4    | 2.19        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 08-Nov-24 | NWL  | 3    | 12.4        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 11-Nov-24 | NWL  | 2    | 19.193      | AUTUMN | 32166  | 3RS ET – POST | P   |
| 11-Nov-24 | NWL  | 3    | 43.23       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 11-Nov-24 | NWL  | 2    | 5.437       | AUTUMN | 32166  | 3RS ET – POST | S   |
| 11-Nov-24 | NWL  | 3    | 6.2         | AUTUMN | 32166  | 3RS ET – POST | S   |
| 18-Nov-24 | DB   | 2    | 3.25        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 18-Nov-24 | DB   | 3    | 4.09        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 18-Nov-24 | DB   | 2    | 1.83        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 18-Nov-24 | DB   | 3    | 2.13        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 18-Nov-24 | NEL  | 2    | 13.59       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 18-Nov-24 | NEL  | 3    | 23.91       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 18-Nov-24 | NEL  | 2    | 4.89        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 18-Nov-24 | NEL  | 3    | 4.61        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 19-Nov-24 | DB   | 3    | 7.65        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 19-Nov-24 | DB   | 3    | 3.65        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 19-Nov-24 | NEL  | 2    | 9.9         | AUTUMN | 32166  | 3RS ET – POST | P   |
| 19-Nov-24 | NEL  | 3    | 26.64       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 19-Nov-24 | NEL  | 2    | 6.4         | AUTUMN | 32166  | 3RS ET – POST | S   |
| 19-Nov-24 | NEL  | 3    | 3.76        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 20-Nov-24 | AW   | 3    | 4.79        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 20-Nov-24 | WL   | 3    | 13.12       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 20-Nov-24 | WL   | 4    | 7.3         | AUTUMN | 32166  | 3RS ET – POST | P   |
| 20-Nov-24 | WL   | 3    | 6.17        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 20-Nov-24 | WL   | 4    | 4.21        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 21-Nov-24 | SWL  | 2    | 23.77       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 21-Nov-24 | SWL  | 3    | 28.3        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 21-Nov-24 | SWL  | 4    | 0.9         | AUTUMN | 32166  | 3RS ET – POST | P   |
| 21-Nov-24 | SWL  | 2    | 11.58       | AUTUMN | 32166  | 3RS ET – POST | S   |
| 21-Nov-24 | SWL  | 3    | 3.85        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 25-Nov-24 | AW   | 3    | 4.7         | AUTUMN | 32166  | 3RS ET – POST | P   |
| 25-Nov-24 | WL   | 3    | 20.18       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 25-Nov-24 | WL   | 3    | 10.52       | AUTUMN | 32166  | 3RS ET – POST | S   |
| 27-Nov-24 | SWL  | 2    | 7.95        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 27-Nov-24 | SWL  | 3    | 36.48       | AUTUMN | 32166  | 3RS ET – POST | P   |
| 27-Nov-24 | SWL  | 4    | 9.35        | AUTUMN | 32166  | 3RS ET – POST | P   |
| 27-Nov-24 | SWL  | 2    | 7.92        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 27-Nov-24 | SWL  | 3    | 7.11        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 27-Nov-24 | SWL  | 4    | 0.69        | AUTUMN | 32166  | 3RS ET – POST | S   |
| 03-Dec-24 | NWL  | 2    | 47.73       | WINTER | 32166  | 3RS ET – POST | P   |
| 03-Dec-24 | NWL  | 3    | 15.9        | WINTER | 32166  | 3RS ET – POST | P   |
| 03-Dec-24 | NWL  | 2    | 8.27        | WINTER | 32166  | 3RS ET – POST | S   |
| 03-Dec-24 | NWL  | 3    | 3.3         | WINTER | 32166  | 3RS ET – POST | S   |
| 04-Dec-24 | AW   | 3    | 4.82        | WINTER | 32166  | 3RS ET – POST | P   |
| 04-Dec-24 | WL   | 2    | 1.047       | WINTER | 32166  | 3RS ET – POST | P   |
| 04-Dec-24 | WL   | 3    | 14.109      | WINTER | 32166  | 3RS ET – POST | P   |

| DATE      | AREA | BEAU | KM SEARCHED | SEASON | VESSEL | TYPE          | P/S |
|-----------|------|------|-------------|--------|--------|---------------|-----|
| 04-Dec-24 | WL   | 4    | 4.44        | WINTER | 32166  | 3RS ET – POST | P   |
| 04-Dec-24 | WL   | 2    | 0.783       | WINTER | 32166  | 3RS ET – POST | S   |
| 04-Dec-24 | WL   | 3    | 7.312       | WINTER | 32166  | 3RS ET – POST | S   |
| 04-Dec-24 | WL   | 4    | 1.28        | WINTER | 32166  | 3RS ET – POST | S   |
| 05-Dec-24 | DB   | 2    | 7.64        | WINTER | 32166  | 3RS ET – POST | P   |
| 05-Dec-24 | DB   | 2    | 3.96        | WINTER | 32166  | 3RS ET – POST | S   |
| 05-Dec-24 | NEL  | 2    | 33.96       | WINTER | 32166  | 3RS ET – POST | P   |
| 05-Dec-24 | NEL  | 3    | 2.71        | WINTER | 32166  | 3RS ET – POST | P   |
| 05-Dec-24 | NEL  | 2    | 9.42        | WINTER | 32166  | 3RS ET – POST | S   |
| 05-Dec-24 | NEL  | 3    | 1.01        | WINTER | 32166  | 3RS ET – POST | S   |
| 06-Dec-24 | AW   | 3    | 4.81        | WINTER | 32166  | 3RS ET – POST | P   |
| 06-Dec-24 | WL   | 3    | 13.06       | WINTER | 32166  | 3RS ET – POST | P   |
| 06-Dec-24 | WL   | 4    | 5.1         | WINTER | 32166  | 3RS ET – POST | P   |
| 06-Dec-24 | WL   | 2    | 0.7         | WINTER | 32166  | 3RS ET – POST | S   |
| 06-Dec-24 | WL   | 3    | 9.64        | WINTER | 32166  | 3RS ET – POST | S   |
| 06-Dec-24 | WL   | 4    | 2.5         | WINTER | 32166  | 3RS ET – POST | S   |
| 11-Dec-24 | DB   | 3    | 7.7         | WINTER | 32166  | 3RS ET – POST | P   |
| 11-Dec-24 | DB   | 3    | 4           | WINTER | 32166  | 3RS ET – POST | S   |
| 11-Dec-24 | NEL  | 2    | 8.8         | WINTER | 32166  | 3RS ET – POST | P   |
| 11-Dec-24 | NEL  | 3    | 28.29       | WINTER | 32166  | 3RS ET – POST | P   |
| 11-Dec-24 | NEL  | 2    | 1.24        | WINTER | 32166  | 3RS ET – POST | S   |
| 11-Dec-24 | NEL  | 3    | 8.57        | WINTER | 32166  | 3RS ET – POST | S   |
| 13-Dec-24 | SWL  | 3    | 22.83       | WINTER | 32166  | 3RS ET – POST | P   |
| 13-Dec-24 | SWL  | 4    | 29.03       | WINTER | 32166  | 3RS ET – POST | P   |
| 13-Dec-24 | SWL  | 5    | 1.8         | WINTER | 32166  | 3RS ET – POST | P   |
| 13-Dec-24 | SWL  | 3    | 5.97        | WINTER | 32166  | 3RS ET – POST | S   |
| 13-Dec-24 | SWL  | 4    | 9.47        | WINTER | 32166  | 3RS ET – POST | S   |
| 18-Dec-24 | SWL  | 2    | 29.776      | WINTER | 32166  | 3RS ET – POST | P   |
| 18-Dec-24 | SWL  | 3    | 24.7        | WINTER | 32166  | 3RS ET – POST | P   |
| 18-Dec-24 | SWL  | 2    | 10.624      | WINTER | 32166  | 3RS ET – POST | S   |
| 18-Dec-24 | SWL  | 3    | 4.39        | WINTER | 32166  | 3RS ET – POST | S   |
| 19-Dec-24 | NWL  | 2    | 5.4         | WINTER | 32166  | 3RS ET – POST | P   |
| 19-Dec-24 | NWL  | 3    | 54.17       | WINTER | 32166  | 3RS ET – POST | P   |
| 19-Dec-24 | NWL  | 4    | 4.2         | WINTER | 32166  | 3RS ET – POST | P   |
| 19-Dec-24 | NWL  | 2    | 0.9         | WINTER | 32166  | 3RS ET – POST | S   |
| 19-Dec-24 | NWL  | 3    | 10.13       | WINTER | 32166  | 3RS ET – POST | S   |
| 19-Dec-24 | NWL  | 4    | 0.8         | WINTER | 32166  | 3RS ET – POST | S   |

## CWD Small Vessel Line-transect Survey

## Sighting Data

| DATE      | STG # | TIME | CWD/FP | GP SZ | AREA | BEAU | PSD | EFFORT | TYPE          | DEC LAT   | DEC LON    | SEASON | BOAT ASSOC. | P/S |
|-----------|-------|------|--------|-------|------|------|-----|--------|---------------|-----------|------------|--------|-------------|-----|
| 15-Jan-24 | 1     | 0940 | CWD    | 1     | AW   | 2    | 352 | ON     | 3RS ET – POST | 22.292622 | 113.877200 | WINTER | NONE        | P   |
| 15-Jan-24 | 2     | 1021 | CWD    | 2     | WL   | 2    | 360 | ON     | 3RS ET – POST | 22.292990 | 113.861105 | WINTER | GILLNETTER  | P   |
| 15-Jan-24 | 3     | 1029 | CWD    | 3     | WL   | 2    | 287 | ON     | 3RS ET – POST | 22.287891 | 113.861267 | WINTER | NONE        | P   |
| 15-Jan-24 | 4     | 1058 | CWD    | 5     | WL   | 2    | 75  | ON     | 3RS ET – POST | 22.265100 | 113.858033 | WINTER | NONE        | S   |
| 15-Jan-24 | 5     | 1143 | CWD    | 2     | WL   | 2    | 245 | ON     | 3RS ET – POST | 22.242110 | 113.846385 | WINTER | NONE        | S   |
| 15-Jan-24 | 6     | 1221 | CWD    | 7     | WL   | 2    | 464 | ON     | 3RS ET – POST | 22.239483 | 113.827531 | WINTER | NONE        | S   |
| 15-Jan-24 | 7     | 1302 | CWD    | 4     | WL   | 2    | 210 | ON     | 3RS ET – POST | 22.223289 | 113.829118 | WINTER | NONE        | P   |
| 15-Jan-24 | 8     | 1330 | CWD    | 4     | WL   | 3    | 150 | ON     | 3RS ET – POST | 22.204811 | 113.830395 | WINTER | NONE        | P   |
| 18-Jan-24 | 1     | 1158 | FP     | 1     | SWL  | 2    | 72  | ON     | 3RS ET – POST | 22.146847 | 113.907946 | WINTER | NONE        | P   |
| 18-Jan-24 | 2     | 1257 | FP     | 3     | SWL  | 2    | 354 | ON     | 3RS ET – POST | 22.160461 | 113.897349 | WINTER | NONE        | P   |
| 18-Jan-24 | 3     | 1359 | FP     | 1     | SWL  | 3    | 121 | ON     | 3RS ET – POST | 22.161403 | 113.878597 | WINTER | NONE        | P   |
| 23-Jan-24 | 1     | 1115 | FP     | 3     | SWL  | 3    | 335 | ON     | 3RS ET – POST | 22.205558 | 113.922932 | WINTER | NONE        | S   |
| 23-Jan-24 | 2     | 1413 | CWD    | 4     | SWL  | 3    | 31  | ON     | 3RS ET – POST | 22.200251 | 113.865006 | WINTER | NONE        | S   |
| 23-Jan-24 | 3     | 1458 | CWD    | 2     | SWL  | 4    | 71  | ON     | 3RS ET – POST | 22.194506 | 113.850075 | WINTER | NONE        | P   |
| 02-Feb-24 | 1     | 0958 | CWD    | 9     | WL   | 2    | 209 | ON     | 3RS ET – POST | 22.298830 | 113.860690 | WINTER | NONE        | P   |
| 02-Feb-24 | 2     | 1048 | CWD    | 1     | WL   | 2    | 566 | ON     | 3RS ET – POST | 22.251552 | 113.833301 | WINTER | NONE        | S   |
| 02-Feb-24 | 3     | 1124 | CWD    | 8     | WL   | 2    | 38  | ON     | 3RS ET – POST | 22.231837 | 113.830160 | WINTER | NONE        | P   |
| 02-Feb-24 | 4     | 1155 | CWD    | 1     | WL   | 2    | 56  | ON     | 3RS ET – POST | 22.223477 | 113.827128 | WINTER | NONE        | P   |
| 14-Feb-24 | 1     | 1031 | FP     | 3     | SWL  | 2    | 139 | ON     | 3RS ET – POST | 22.187100 | 113.936056 | WINTER | NONE        | P   |
| 14-Feb-24 | 2     | 1119 | FP     | 1     | SWL  | 2    | 102 | ON     | 3RS ET – POST | 22.202507 | 113.926861 | WINTER | NONE        | P   |
| 14-Feb-24 | 3     | 1132 | FP     | 2     | SWL  | 2    | 76  | ON     | 3RS ET – POST | 22.188795 | 113.918641 | WINTER | NONE        | P   |
| 14-Feb-24 | 4     | 1149 | FP     | 2     | SWL  | 3    | 28  | ON     | 3RS ET – POST | 22.153483 | 113.917450 | WINTER | NONE        | P   |
| 15-Feb-24 | 1     | 1041 | FP     | 3     | SWL  | 2    | 59  | ON     | 3RS ET – POST | 22.164282 | 113.936414 | WINTER | NONE        | P   |
| 15-Feb-24 | 2     | 1044 | FP     | 2     | SWL  | 2    | 57  | ON     | 3RS ET – POST | 22.161875 | 113.936853 | WINTER | NONE        | P   |
| 15-Feb-24 | 3     | 1054 | FP     | 5     | SWL  | 2    | 141 | ON     | 3RS ET – POST | 22.145704 | 113.931314 | WINTER | NONE        | S   |
| 15-Feb-24 | 4     | 1148 | FP     | 2     | SWL  | 2    | 154 | ON     | 3RS ET – POST | 22.153818 | 113.917487 | WINTER | NONE        | P   |
| 15-Feb-24 | 5     | 1302 | FP     | 1     | SWL  | 2    | 64  | ON     | 3RS ET – POST | 22.155036 | 113.897925 | WINTER | NONE        | P   |
| 15-Feb-24 | 6     | 1321 | FP     | 2     | SWL  | 3    | 68  | ON     | 3RS ET – POST | 22.174237 | 113.888019 | WINTER | NONE        | P   |
| 19-Feb-24 | 1     | 1044 | CWD    | 11    | WL   | 3    | 141 | ON     | 3RS ET – POST | 22.242657 | 113.848215 | WINTER | NONE        | S   |
| 19-Feb-24 | 2     | 1159 | CWD    | 2     | WL   | 3    | 155 | ON     | 3RS ET – POST | 22.195691 | 113.840362 | WINTER | NONE        | P   |
| 18-Mar-24 | 1     | 1035 | FP     | 5     | SWL  | 2    | 62  | ON     | 3RS ET – POST | 22.183501 | 113.936303 | SPRING | NONE        | P   |

| DATE      | STG # | TIME | CWD/FP | GP SZ | AREA | BEAU | PSD | EFFORT | TYPE          | DEC LAT   | DEC LON    | SEASON | BOAT ASSOC. | P/S |
|-----------|-------|------|--------|-------|------|------|-----|--------|---------------|-----------|------------|--------|-------------|-----|
| 18-Mar-24 | 2     | 1041 | FP     | 2     | SWL  | 2    | 297 | ON     | 3RS ET – POST | 22.173528 | 113.936039 | SPRING | NONE        | P   |
| 18-Mar-24 | 3     | 1104 | FP     | 4     | SWL  | 2    | 213 | ON     | 3RS ET – POST | 22.159092 | 113.927456 | SPRING | NONE        | P   |
| 22-Mar-24 | 1     | 1027 | CWD    | 1     | WL   | 3    | 398 | ON     | 3RS ET – POST | 22.260790 | 113.853104 | SPRING | NONE        | S   |
| 22-Mar-24 | 2     | 1112 | CWD    | 2     | WL   | 3    | 58  | ON     | 3RS ET – POST | 22.231666 | 113.830900 | SPRING | NONE        | P   |
| 22-Mar-24 | 3     | 1128 | CWD    | 4     | WL   | 3    | 87  | ON     | 3RS ET – POST | 22.224179 | 113.835142 | SPRING | NONE        | P   |
| 22-Mar-24 | 4     | 1156 | CWD    | 1     | WL   | 3    | 148 | ON     | 3RS ET – POST | 22.220932 | 113.820006 | SPRING | NONE        | S   |
| 22-Mar-24 | 5     | 1213 | CWD    | 1     | WL   | 3    | 15  | ON     | 3RS ET – POST | 22.214444 | 113.833562 | SPRING | NONE        | P   |
| 12-Apr-24 | 1     | 1029 | CWD    | 1     | WL   | 2    | 250 | ON     | 3RS ET – POST | 22.260753 | 113.844256 | SPRING | NONE        | P   |
| 12-Apr-24 | 2     | 1038 | CWD    | 5     | WL   | 2    | 2   | ON     | 3RS ET – POST | 22.260397 | 113.839368 | SPRING | NONE        | P   |
| 12-Apr-24 | 3     | 1108 | CWD    | 8     | WL   | 3    | 852 | ON     | 3RS ET – POST | 22.241612 | 113.830471 | SPRING | NONE        | S   |
| 12-Apr-24 | 4     | 1152 | CWD    | 2     | WL   | 2    | 10  | ON     | 3RS ET – POST | 22.232358 | 113.828428 | SPRING | NONE        | P   |
| 12-Apr-24 | 5     | 1201 | CWD    | 3     | WL   | 2    | 28  | ON     | 3RS ET – POST | 22.228828 | 113.837874 | SPRING | NONE        | S   |
| 12-Apr-24 | 6     | 1211 | CWD    | 2     | WL   | 2    | 104 | ON     | 3RS ET – POST | 22.223666 | 113.835200 | SPRING | NONE        | P   |
| 12-Apr-24 | 7     | 1218 | CWD    | 2     | WL   | 2    | 37  | ON     | 3RS ET – POST | 22.223917 | 113.829790 | SPRING | NONE        | P   |
| 12-Apr-24 | 8     | 1236 | CWD    | 1     | WL   | 2    | 84  | ON     | 3RS ET – POST | 22.214303 | 113.823811 | SPRING | NONE        | P   |
| 12-Apr-24 | 9     | 1245 | CWD    | 4     | WL   | 2    | 219 | ON     | 3RS ET – POST | 22.214153 | 113.832178 | SPRING | NONE        | P   |
| 12-Apr-24 | 10    | 1301 | CWD    | 1     | WL   | 2    | 559 | ON     | 3RS ET – POST | 22.205549 | 113.830723 | SPRING | NONE        | P   |
| 12-Apr-24 | 11    | 1313 | CWD    | 1     | WL   | 3    | 1   | ON     | 3RS ET – POST | 22.202557 | 113.823212 | SPRING | NONE        | S   |
| 12-Apr-24 | 12    | 1319 | CWD    | 7     | WL   | 2    | 9   | ON     | 3RS ET – POST | 22.197032 | 113.829654 | SPRING | NONE        | P   |
| 17-Apr-24 | 1     | 1129 | CWD    | 6     | WL   | 3    | 126 | ON     | 3RS ET – POST | 22.218891 | 113.820043 | SPRING | NONE        | S   |
| 06-May-24 | 1     | 1038 | FP     | 1     | SWL  | 2    | 62  | ON     | 3RS ET – POST | 22.185202 | 113.936117 | SPRING | NONE        | P   |
| 06-May-24 | 2     | 1042 | FP     | 2     | SWL  | 2    | 23  | ON     | 3RS ET – POST | 22.181401 | 113.936005 | SPRING | NONE        | P   |
| 06-May-24 | 3     | 1105 | FP     | 1     | SWL  | 2    | 23  | ON     | 3RS ET – POST | 22.152234 | 113.928157 | SPRING | NONE        | P   |
| 06-May-24 | 4     | 1116 | FP     | 1     | SWL  | 2    | 223 | ON     | 3RS ET – POST | 22.170622 | 113.928376 | SPRING | NONE        | P   |
| 06-May-24 | 5     | 1120 | FP     | 12    | SWL  | 2    | 38  | ON     | 3RS ET – POST | 22.174289 | 113.928408 | SPRING | NONE        | P   |
| 06-May-24 | 6     | 1140 | CWD    | 2     | SWL  | 2    | 503 | ON     | 3RS ET – POST | 22.205483 | 113.922004 | SPRING | NONE        | S   |
| 06-May-24 | 7     | 1224 | FP     | 3     | SWL  | 2    | 59  | ON     | 3RS ET – POST | 22.144022 | 113.907800 | SPRING | NONE        | P   |
| 06-May-24 | 8     | 1251 | CWD    | 2     | SWL  | 2    | 175 | ON     | 3RS ET – POST | 22.188334 | 113.905322 | SPRING | NONE        | S   |
| 06-May-24 | 9     | 1437 | CWD    | 1     | SWL  | 2    | 297 | ON     | 3RS ET – POST | 22.160500 | 113.869880 | SPRING | NONE        | S   |
| 06-May-24 | 10    | 1529 | CWD    | 3     | SWL  | 2    | 17  | ON     | 3RS ET – POST | 22.173456 | 113.849804 | SPRING | NONE        | P   |
| 13-May-24 | 1     | 1054 | CWD    | 6     | WL   | 3    | 21  | ON     | 3RS ET – POST | 22.241573 | 113.842234 | SPRING | NONE        | P   |
| 13-May-24 | 2     | 1109 | CWD    | 1     | WL   | 2    | 57  | ON     | 3RS ET – POST | 22.241684 | 113.834789 | SPRING | NONE        | P   |
| 13-May-24 | 3     | 1145 | CWD    | 1     | WL   | 3    | 278 | ON     | 3RS ET – POST | 22.214050 | 113.833344 | SPRING | NONE        | P   |

| DATE      | STG # | TIME | CWD/FP | GP SZ | AREA | BEAU | PSD | EFFORT | TYPE          | DEC LAT   | DEC LON    | SEASON | BOAT ASSOC.     | P/S |
|-----------|-------|------|--------|-------|------|------|-----|--------|---------------|-----------|------------|--------|-----------------|-----|
| 14-May-24 | 1     | 1021 | CWD    | 1     | NWL  | 3    | 369 | ON     | 3RS ET – POST | 22.304794 | 113.870037 | SPRING | NONE            | P   |
| 27-May-24 | 1     | 1131 | CWD    | 1     | WL   | 3    | 85  | ON     | 3RS ET – POST | 22.214763 | 113.833378 | SPRING | NONE            | P   |
| 05-Jun-24 | 1     | 1153 | CWD    | 7     | WL   | 3    | 127 | ON     | 3RS ET – POST | 22.193425 | 113.842457 | SUMMER | NONE            | S   |
| 11-Jun-24 | 1     | 1044 | CWD    | 2     | WL   | 3    | 233 | ON     | 3RS ET – POST | 22.254940 | 113.835700 | SUMMER | NONE            | S   |
| 11-Jun-24 | 2     | 1110 | CWD    | 2     | WL   | 3    | 773 | ON     | 3RS ET – POST | 22.241973 | 113.838163 | SUMMER | PURSE<br>SEINER | P   |
| 11-Jun-24 | 3     | 1129 | CWD    | 3     | WL   | 3    | 119 | ON     | 3RS ET – POST | 22.238116 | 113.826417 | SUMMER | NONE            | S   |
| 11-Jun-24 | 4     | 1143 | CWD    | 2     | WL   | 3    | 305 | ON     | 3RS ET – POST | 22.223311 | 113.831120 | SUMMER | PURSE<br>SEINER | P   |
| 11-Jun-24 | 5     | 1211 | CWD    | 1     | WL   | 3    | 41  | ON     | 3RS ET – POST | 22.217972 | 113.819614 | SUMMER | NONE            | S   |
| 20-Jun-24 | 1     | 1121 | CWD    | 1     | SWL  | 2    | 533 | ON     | 3RS ET – POST | 22.205144 | 113.918873 | SUMMER | GILLNETTER      | S   |
| 20-Jun-24 | 2     | 1144 | CWD    | 1     | SWL  | 2    | 99  | ON     | 3RS ET – POST | 22.192009 | 113.918474 | SUMMER | NONE            | P   |
| 20-Jun-24 | 3     | 1219 | CWD    | 1     | SWL  | 2    | 51  | ON     | 3RS ET – POST | 22.154684 | 113.905568 | SUMMER | NONE            | S   |
| 20-Jun-24 | 4     | 1244 | CWD    | 8     | SWL  | 2    | 38  | ON     | 3RS ET – POST | 22.192402 | 113.906930 | SUMMER | NONE            | S   |
| 20-Jun-24 | 5     | 1400 | CWD    | 9     | SWL  | 3    | 300 | ON     | 3RS ET – POST | 22.181793 | 113.887713 | SUMMER | NONE            | P   |
| 20-Jun-24 | 6     | 1519 | CWD    | 2     | SWL  | 2    | 31  | ON     | 3RS ET – POST | 22.192438 | 113.858869 | SUMMER | NONE            | P   |
| 25-Jun-24 | 1     | 1021 | CWD    | 1     | NWL  | 3    | 100 | ON     | 3RS ET – POST | 22.309436 | 113.870352 | SUMMER | NONE            | P   |
| 09-Jul-24 | 1     | 1117 | FP     | 7     | SWL  | 2    | 71  | ON     | 3RS ET – POST | 22.165501 | 113.926321 | SUMMER | NONE            | P   |
| 09-Jul-24 | 2     | 1345 | CWD    | 7     | SWL  | 2    | 17  | ON     | 3RS ET – POST | 22.189164 | 113.887583 | SUMMER | NONE            | P   |
| 09-Jul-24 | 3     | 1404 | CWD    | 4     | SWL  | 2    | 24  | ON     | 3RS ET – POST | 22.197137 | 113.887181 | SUMMER | PURSE<br>SEINER | P   |
| 09-Jul-24 | 4     | 1435 | CWD    | 1     | SWL  | 2    | 482 | ON     | 3RS ET – POST | 22.191283 | 113.879085 | SUMMER | NONE            | P   |
| 09-Jul-24 | 5     | 1448 | CWD    | 2     | SWL  | 3    | 186 | ON     | 3RS ET – POST | 22.180607 | 113.878580 | SUMMER | PURSE<br>SEINER | P   |
| 09-Jul-24 | 6     | 1516 | CWD    | 6     | SWL  | 3    | 433 | ON     | 3RS ET – POST | 22.174373 | 113.868995 | SUMMER | NONE            | P   |
| 09-Jul-24 | 7     | 1537 | CWD    | 2     | SWL  | 2    | 220 | ON     | 3RS ET – POST | 22.190265 | 113.869258 | SUMMER | NONE            | P   |
| 09-Jul-24 | 8     | 1558 | CWD    | 3     | SWL  | 2    | 199 | ON     | 3RS ET – POST | 22.189163 | 113.859117 | SUMMER | NONE            | P   |
| 09-Jul-24 | 9     | 1605 | CWD    | 4     | SWL  | 2    | 105 | ON     | 3RS ET – POST | 22.184422 | 113.859532 | SUMMER | NONE            | P   |
| 09-Jul-24 | 10    | 1614 | CWD    | 1     | SWL  | 3    | 189 | ON     | 3RS ET – POST | 22.175476 | 113.859154 | SUMMER | NONE            | P   |
| 09-Jul-24 | 11    | 1618 | CWD    | 2     | SWL  | 3    | 27  | ON     | 3RS ET – POST | 22.182510 | 113.850143 | SUMMER | NONE            | P   |
| 09-Jul-24 | 12    | 1635 | CWD    | 4     | SWL  | 3    | 99  | ON     | 3RS ET – POST | 22.190094 | 113.850449 | SUMMER | NONE            | P   |
| 10-Jul-24 | 1     | 1021 | CWD    | 4     | WL   | 2    | 417 | ON     | 3RS ET – POST | 22.274378 | 113.847994 | SUMMER | PURSE<br>SEINER | S   |
| 10-Jul-24 | 2     | 1115 | CWD    | 4     | WL   | 2    | 270 | ON     | 3RS ET – POST | 22.238347 | 113.827155 | SUMMER | NONE            | S   |
| 10-Jul-24 | 3     | 1119 | CWD    | 5     | WL   | 3    | 57  | ON     | 3RS ET – POST | 22.235064 | 113.826031 | SUMMER | NONE            | S   |



| DATE      | STG # | TIME | CWD/FP | GP SZ | AREA | BEAU | PSD | EFFORT | TYPE          | DEC LAT   | DEC LON    | SEASON | BOAT ASSOC.     | P/S |
|-----------|-------|------|--------|-------|------|------|-----|--------|---------------|-----------|------------|--------|-----------------|-----|
| 10-Jul-24 | 4     | 1140 | CWD    | 7     | WL   | 3    | 272 | ON     | 3RS ET – POST | 22.223808 | 113.831824 | SUMMER | NONE            | P   |
| 10-Jul-24 | 5     | 1201 | CWD    | 1     | WL   | 3    | 96  | ON     | 3RS ET – POST | 22.214815 | 113.829508 | SUMMER | NONE            | P   |
| 10-Jul-24 | 6     | 1219 | CWD    | 6     | WL   | 3    | 600 | ON     | 3RS ET – POST | 22.205413 | 113.835764 | SUMMER | NONE            | P   |
| 10-Jul-24 | 7     | 1235 | CWD    | 1     | WL   | 3    | 176 | ON     | 3RS ET – POST | 22.195427 | 113.838294 | SUMMER | NONE            | P   |
| 10-Jul-24 | 8     | 1248 | CWD    | 2     | WL   | 3    | 96  | ON     | 3RS ET – POST | 22.196335 | 113.841044 | SUMMER | NONE            | P   |
| 11-Jul-24 | 1     | 1103 | FP     | 3     | SWL  | 3    | 38  | ON     | 3RS ET – POST | 22.156041 | 113.935873 | SUMMER | NONE            | P   |
| 11-Jul-24 | 2     | 1442 | CWD    | 3     | SWL  | 2    | 105 | ON     | 3RS ET – POST | 22.200599 | 113.866037 | SUMMER | NONE            | S   |
| 11-Jul-24 | 3     | 1520 | CWD    | 3     | SWL  | 3    | 150 | ON     | 3RS ET – POST | 22.185459 | 113.848936 | SUMMER | NONE            | P   |
| 12-Jul-24 | 1     | 1102 | CWD    | 7     | WL   | 3    | 120 | ON     | 3RS ET – POST | 22.241310 | 113.837431 | SUMMER | NONE            | P   |
| 12-Jul-24 | 2     | 1129 | CWD    | 2     | WL   | 3    | 22  | ON     | 3RS ET – POST | 22.232020 | 113.833559 | SUMMER | NONE            | P   |
| 12-Jul-24 | 3     | 1206 | CWD    | 9     | WL   | 3    | 20  | ON     | 3RS ET – POST | 22.210995 | 113.838672 | SUMMER | NONE            | P   |
| 12-Jul-24 | 4     | 1225 | CWD    | 1     | WL   | 3    | 11  | ON     | 3RS ET – POST | 22.204993 | 113.834609 | SUMMER | NONE            | P   |
| 12-Jul-24 | 5     | 1229 | CWD    | 1     | WL   | 3    | 255 | ON     | 3RS ET – POST | 22.205064 | 113.831774 | SUMMER | NONE            | P   |
| 12-Jul-24 | 6     | 1251 | CWD    | 11    | WL   | 3    | 56  | ON     | 3RS ET – POST | 22.196207 | 113.837629 | SUMMER | NONE            | P   |
| 07-Aug-24 | 1     | 1125 | FP     | 4     | SWL  | 2    | 114 | ON     | 3RS ET – POST | 22.181604 | 113.927613 | SUMMER | NONE            | P   |
| 07-Aug-24 | 2     | 1436 | CWD    | 10    | SWL  | 2    | 730 | ON     | 3RS ET – POST | 22.178239 | 113.869397 | SUMMER | PURSE<br>SEINER | P   |
| 07-Aug-24 | 3     | 1500 | CWD    | 2     | SWL  | 2    | 93  | ON     | 3RS ET – POST | 22.190175 | 113.868994 | SUMMER | NONE            | P   |
| 08-Aug-24 | 1     | 1255 | CWD    | 1     | SWL  | 3    | 115 | ON     | 3RS ET – POST | 22.208114 | 113.898101 | SUMMER | NONE            | P   |
| 08-Aug-24 | 2     | 1528 | CWD    | 1     | SWL  | 3    | 209 | ON     | 3RS ET – POST | 22.187852 | 113.850961 | SUMMER | NONE            | P   |
| 08-Aug-24 | 3     | 1539 | CWD    | 5     | SWL  | 3    | 340 | ON     | 3RS ET – POST | 22.191299 | 113.850219 | SUMMER | NONE            | P   |
| 13-Aug-24 | 1     | 1026 | CWD    | 2     | WL   | 2    | 279 | ON     | 3RS ET – POST | 22.276314 | 113.850779 | SUMMER | NONE            | S   |
| 13-Aug-24 | 2     | 1029 | CWD    | 4     | WL   | 2    | 73  | ON     | 3RS ET – POST | 22.274353 | 113.849073 | SUMMER | NONE            | S   |
| 13-Aug-24 | 3     | 1049 | CWD    | 6     | WL   | 2    | 780 | ON     | 3RS ET – POST | 22.268972 | 113.851556 | SUMMER | NONE            | P   |
| 13-Aug-24 | 4     | 1106 | CWD    | 2     | WL   | 2    | 56  | ON     | 3RS ET – POST | 22.261087 | 113.847140 | SUMMER | NONE            | P   |
| 13-Aug-24 | 5     | 1130 | CWD    | 4     | WL   | 2    | 460 | ON     | 3RS ET – POST | 22.249906 | 113.845212 | SUMMER | NONE            | P   |
| 13-Aug-24 | 6     | 1155 | CWD    | 1     | WL   | 2    | 61  | ON     | 3RS ET – POST | 22.241160 | 113.840797 | SUMMER | NONE            | P   |
| 13-Aug-24 | 7     | 1219 | CWD    | 1     | WL   | 2    | 25  | ON     | 3RS ET – POST | 22.230694 | 113.838275 | SUMMER | NONE            | S   |
| 13-Aug-24 | 8     | 1223 | CWD    | 11    | WL   | 2    | 119 | ON     | 3RS ET – POST | 22.225699 | 113.837617 | SUMMER | NONE            | S   |
| 13-Aug-24 | 9     | 1259 | CWD    | 2     | WL   | 2    | 39  | ON     | 3RS ET – POST | 22.214130 | 113.823569 | SUMMER | NONE            | P   |
| 13-Aug-24 | 10    | 1309 | CWD    | 2     | WL   | 2    | 46  | ON     | 3RS ET – POST | 22.214249 | 113.834008 | SUMMER | NONE            | P   |
| 13-Aug-24 | 11    | 1317 | CWD    | 2     | WL   | 2    | 40  | ON     | 3RS ET – POST | 22.209576 | 113.839496 | SUMMER | NONE            | S   |
| 13-Aug-24 | 12    | 1325 | CWD    | 1     | WL   | 2    | 63  | ON     | 3RS ET – POST | 22.204847 | 113.836614 | SUMMER | NONE            | P   |

| DATE      | STG # | TIME | CWD/FP | GP SZ | AREA | BEAU | PSD  | EFFORT | TYPE          | DEC LAT   | DEC LON    | SEASON | BOAT ASSOC. | P/S |
|-----------|-------|------|--------|-------|------|------|------|--------|---------------|-----------|------------|--------|-------------|-----|
| 13-Aug-24 | 13    | 1339 | CWD    | 4     | WL   | 2    | 96   | ON     | 3RS ET – POST | 22.195582 | 113.831013 | SUMMER | NONE        | P   |
| 23-Aug-24 | 1     | 1011 | CWD    | 6     | WL   | 2    | 6    | ON     | 3RS ET – POST | 22.265732 | 113.855409 | SUMMER | NONE        | S   |
| 23-Aug-24 | 2     | 1102 | CWD    | 1     | WL   | 2    | 1964 | ON     | 3RS ET – POST | 22.241990 | 113.842909 | SUMMER | NONE        | P   |
| 23-Aug-24 | 3     | 1124 | CWD    | 2     | WL   | 2    | 149  | ON     | 3RS ET – POST | 22.232578 | 113.833757 | SUMMER | NONE        | P   |
| 23-Aug-24 | 4     | 1144 | CWD    | 7     | WL   | 2    | 102  | ON     | 3RS ET – POST | 22.224634 | 113.837657 | SUMMER | NONE        | S   |
| 23-Aug-24 | 5     | 1201 | CWD    | 2     | WL   | 2    | 183  | ON     | 3RS ET – POST | 22.223598 | 113.831367 | SUMMER | NONE        | P   |
| 23-Aug-24 | 6     | 1227 | CWD    | 2     | WL   | 2    | 50   | ON     | 3RS ET – POST | 22.205672 | 113.837604 | SUMMER | NONE        | S   |
| 23-Aug-24 | 7     | 1302 | CWD    | 1     | WL   | 2    | 367  | ON     | 3RS ET – POST | 22.193667 | 113.842429 | SUMMER | NONE        | S   |
| 03-Sep-24 | 1     | 1048 | FP     | 1     | SWL  | 2    | 120  | ON     | 3RS ET – POST | 22.165969 | 113.935472 | AUTUMN | NONE        | P   |
| 03-Sep-24 | 2     | 1208 | FP     | 2     | SWL  | 3    | 79   | ON     | 3RS ET – POST | 22.154981 | 113.906476 | AUTUMN | NONE        | S   |
| 03-Sep-24 | 3     | 1255 | FP     | 5     | SWL  | 2    | 62   | ON     | 3RS ET – POST | 22.180732 | 113.897821 | AUTUMN | NONE        | P   |
| 03-Sep-24 | 4     | 1336 | FP     | 2     | SWL  | 2    | 87   | ON     | 3RS ET – POST | 22.198741 | 113.887154 | AUTUMN | NONE        | P   |
| 03-Sep-24 | 5     | 1340 | FP     | 5     | SWL  | 2    | 50   | ON     | 3RS ET – POST | 22.201740 | 113.887273 | AUTUMN | NONE        | P   |
| 03-Sep-24 | 6     | 1429 | CWD    | 1     | SWL  | 2    | 483  | ON     | 3RS ET – POST | 22.187837 | 113.869114 | AUTUMN | NONE        | P   |
| 03-Sep-24 | 7     | 1459 | CWD    | 3     | SWL  | 2    | 749  | ON     | 3RS ET – POST | 22.193207 | 113.859253 | AUTUMN | NONE        | P   |
| 03-Sep-24 | 8     | 1514 | CWD    | 1     | SWL  | 1    | 81   | ON     | 3RS ET – POST | 22.179321 | 113.859169 | AUTUMN | NONE        | P   |
| 03-Sep-24 | 9     | 1531 | CWD    | 1     | SWL  | 1    | 69   | ON     | 3RS ET – POST | 22.179610 | 113.849422 | AUTUMN | NONE        | P   |
| 04-Sep-24 | 1     | 1028 | CWD    | 11    | NWL  | 2    | 1305 | ON     | 3RS ET – POST | 22.279858 | 113.870376 | AUTUMN | NONE        | P   |
| 09-Sep-24 | 1     | 0959 | CWD    | 2     | WL   | 2    | 45   | ON     | 3RS ET – POST | 22.293002 | 113.861438 | AUTUMN | NONE        | P   |
| 09-Sep-24 | 2     | 1032 | CWD    | 4     | WL   | 2    | 147  | ON     | 3RS ET – POST | 22.262982 | 113.856322 | AUTUMN | NONE        | S   |
| 09-Sep-24 | 3     | 1108 | CWD    | 3     | WL   | 2    | 58   | ON     | 3RS ET – POST | 22.241153 | 113.835529 | AUTUMN | NONE        | P   |
| 09-Sep-24 | 4     | 1133 | CWD    | 4     | WL   | 3    | 47   | ON     | 3RS ET – POST | 22.223890 | 113.825113 | AUTUMN | NONE        | P   |
| 09-Sep-24 | 5     | 1152 | CWD    | 5     | WL   | 3    | 374  | ON     | 3RS ET – POST | 22.214263 | 113.830389 | AUTUMN | NONE        | P   |
| 10-Sep-24 | 1     | 1012 | CWD    | 2     | WL   | 2    | 682  | ON     | 3RS ET – POST | 22.268757 | 113.851293 | AUTUMN | NONE        | P   |
| 10-Sep-24 | 2     | 1027 | CWD    | 2     | WL   | 2    | 50   | ON     | 3RS ET – POST | 22.260285 | 113.852297 | AUTUMN | GILLNETTER  | S   |
| 10-Sep-24 | 3     | 1109 | CWD    | 2     | WL   | 2    | 515  | ON     | 3RS ET – POST | 22.241557 | 113.842116 | AUTUMN | NONE        | P   |
| 10-Sep-24 | 4     | 1125 | CWD    | 2     | WL   | 2    | 650  | ON     | 3RS ET – POST | 22.237514 | 113.826301 | AUTUMN | NONE        | S   |
| 10-Sep-24 | 5     | 1130 | CWD    | 2     | WL   | 2    | 189  | ON     | 3RS ET – POST | 22.231850 | 113.828151 | AUTUMN | NONE        | P   |
| 10-Sep-24 | 6     | 1145 | CWD    | 8     | WL   | 2    | 178  | ON     | 3RS ET – POST | 22.223681 | 113.836624 | AUTUMN | NONE        | P   |
| 10-Sep-24 | 7     | 1205 | CWD    | 2     | WL   | 2    | 325  | ON     | 3RS ET – POST | 22.224087 | 113.825049 | AUTUMN | NONE        | P   |
| 10-Sep-24 | 8     | 1231 | CWD    | 2     | WL   | 2    | 641  | ON     | 3RS ET – POST | 22.204897 | 113.828446 | AUTUMN | NONE        | P   |
| 10-Sep-24 | 9     | 1249 | CWD    | 10    | WL   | 2    | 553  | ON     | 3RS ET – POST | 22.196120 | 113.832790 | AUTUMN | NONE        | P   |
| 11-Sep-24 | 1     | 1040 | FP     | 7     | SWL  | 2    | 160  | ON     | 3RS ET – POST | 22.180715 | 113.935919 | AUTUMN | NONE        | P   |

| DATE      | STG # | TIME | CWD/FP | GP SZ | AREA | BEAU | PSD | EFFORT | TYPE          | DEC LAT   | DEC LON    | SEASON | BOAT ASSOC. | P/S |
|-----------|-------|------|--------|-------|------|------|-----|--------|---------------|-----------|------------|--------|-------------|-----|
| 11-Sep-24 | 2     | 1049 | FP     | 1     | SWL  | 2    | 147 | ON     | 3RS ET – POST | 22.161447 | 113.936922 | AUTUMN | NONE        | P   |
| 11-Sep-24 | 3     | 1110 | FP     | 4     | SWL  | 2    | 196 | ON     | 3RS ET – POST | 22.164758 | 113.927141 | AUTUMN | NONE        | P   |
| 11-Sep-24 | 4     | 1156 | FP     | 3     | SWL  | 2    | 39  | ON     | 3RS ET – POST | 22.156532 | 113.917126 | AUTUMN | NONE        | P   |
| 11-Sep-24 | 5     | 1208 | FP     | 3     | SWL  | 2    | 28  | ON     | 3RS ET – POST | 22.144751 | 113.907689 | AUTUMN | NONE        | P   |
| 11-Sep-24 | 6     | 1211 | FP     | 8     | SWL  | 2    | 208 | ON     | 3RS ET – POST | 22.148874 | 113.907779 | AUTUMN | NONE        | P   |
| 11-Sep-24 | 7     | 1244 | FP     | 2     | SWL  | 2    | 18  | ON     | 3RS ET – POST | 22.209166 | 113.903346 | AUTUMN | NONE        | S   |
| 11-Sep-24 | 8     | 1501 | CWD    | 6     | SWL  | 2    | 398 | ON     | 3RS ET – POST | 22.186514 | 113.849794 | AUTUMN | NONE        | P   |
| 07-Oct-24 | 1     | 1055 | FP     | 5     | SWL  | 2    | 206 | ON     | 3RS ET – POST | 22.173416 | 113.935823 | AUTUMN | NONE        | P   |
| 07-Oct-24 | 2     | 1101 | FP     | 1     | SWL  | 2    | 249 | ON     | 3RS ET – POST | 22.162520 | 113.936070 | AUTUMN | NONE        | P   |
| 07-Oct-24 | 3     | 1242 | CWD    | 1     | SWL  | 2    | 50  | ON     | 3RS ET – POST | 22.201710 | 113.907003 | AUTUMN | NONE        | P   |
| 07-Oct-24 | 4     | 1434 | CWD    | 1     | SWL  | 2    | 749 | ON     | 3RS ET – POST | 22.182083 | 113.868690 | AUTUMN | NONE        | P   |
| 07-Oct-24 | 5     | 1514 | CWD    | 2     | SWL  | 2    | 115 | ON     | 3RS ET – POST | 22.183842 | 113.849359 | AUTUMN | NONE        | P   |
| 07-Oct-24 | 6     | 1529 | CWD    | 4     | SWL  | 2    | 146 | ON     | 3RS ET – POST | 22.189920 | 113.849326 | AUTUMN | GILLNETTER  | P   |
| 18-Oct-24 | 1     | 1046 | CWD    | 1     | WL   | 2    | 255 | ON     | 3RS ET – POST | 22.261254 | 113.843910 | AUTUMN | NONE        | P   |
| 18-Oct-24 | 2     | 1113 | CWD    | 2     | WL   | 3    | 240 | ON     | 3RS ET – POST | 22.244221 | 113.848802 | AUTUMN | NONE        | S   |
| 18-Oct-24 | 3     | 1135 | CWD    | 3     | WL   | 3    | 79  | ON     | 3RS ET – POST | 22.231904 | 113.832136 | AUTUMN | NONE        | P   |
| 18-Oct-24 | 4     | 1153 | CWD    | 4     | WL   | 1    | 156 | ON     | 3RS ET – POST | 22.223908 | 113.836756 | AUTUMN | NONE        | P   |
| 22-Oct-24 | 1     | 1038 | FP     | 1     | SWL  | 2    | 80  | ON     | 3RS ET – POST | 22.185353 | 113.936400 | AUTUMN | NONE        | P   |
| 22-Oct-24 | 2     | 1041 | FP     | 1     | SWL  | 2    | 270 | ON     | 3RS ET – POST | 22.180477 | 113.936367 | AUTUMN | NONE        | P   |
| 22-Oct-24 | 3     | 1119 | FP     | 1     | SWL  | 1    | 14  | ON     | 3RS ET – POST | 22.188012 | 113.927142 | AUTUMN | NONE        | P   |
| 22-Oct-24 | 4     | 1204 | FP     | 2     | SWL  | 2    | 122 | ON     | 3RS ET – POST | 22.148815 | 113.907147 | AUTUMN | NONE        | P   |
| 11-Nov-24 | 1     | 1051 | CWD    | 1     | NWL  | 2    | 471 | ON     | 3RS ET – POST | 22.291984 | 113.878060 | AUTUMN | NONE        | P   |
| 20-Nov-24 | 1     | 1113 | CWD    | 3     | WL   | 3    | 26  | ON     | 3RS ET – POST | 22.224825 | 113.837375 | AUTUMN | NONE        | S   |
| 21-Nov-24 | 1     | 1123 | CWD    | 1     | SWL  | 2    | 10  | ON     | 3RS ET – POST | 22.203097 | 113.917402 | AUTUMN | NONE        | P   |
| 21-Nov-24 | 2     | 1316 | CWD    | 1     | SWL  | 2    | 90  | ON     | 3RS ET – POST | 22.164316 | 113.888273 | AUTUMN | NONE        | P   |
| 27-Nov-24 | 1     | 1102 | FP     | 5     | SWL  | 3    | 79  | ON     | 3RS ET – POST | 22.162243 | 113.927583 | AUTUMN | NONE        | P   |
| 27-Nov-24 | 2     | 1232 | CWD    | 1     | SWL  | 3    | 37  | ON     | 3RS ET – POST | 22.206618 | 113.905849 | AUTUMN | NONE        | S   |
| 27-Nov-24 | 3     | 1503 | CWD    | 2     | SWL  | 3    | 66  | ON     | 3RS ET – POST | 22.193501 | 113.849429 | AUTUMN | NONE        | P   |
| 03-Dec-24 | 1     | 1154 | CWD    | 2     | NWL  | 2    | 195 | ON     | 3RS ET – POST | 22.384049 | 113.888002 | WINTER | NONE        | P   |
| 04-Dec-24 | 1     | 1015 | CWD    | 3     | WL   | 3    | 9   | ON     | 3RS ET – POST | 22.269486 | 113.843872 | WINTER | NONE        | S   |
| 04-Dec-24 | 2     | 1057 | CWD    | 1     | WL   | 3    | 211 | ON     | 3RS ET – POST | 22.245889 | 113.850191 | WINTER | NONE        | S   |
| 04-Dec-24 | 3     | 1120 | CWD    | 1     | WL   | 3    | 15  | ON     | 3RS ET – POST | 22.232359 | 113.833560 | WINTER | NONE        | P   |
| 04-Dec-24 | 4     | 1129 | CWD    | 1     | WL   | 2    | 20  | ON     | 3RS ET – POST | 22.227964 | 113.837675 | WINTER | NONE        | S   |

| DATE      | STG # | TIME | CWD/FP | GP SZ | AREA | BEAU | PSD | EFFORT | TYPE          | DEC LAT   | DEC LON    | SEASON | BOAT ASSOC. | P/S |
|-----------|-------|------|--------|-------|------|------|-----|--------|---------------|-----------|------------|--------|-------------|-----|
| 04-Dec-24 | 5     | 1150 | CWD    | 2     | WL   | 3    | 955 | ON     | 3RS ET – POST | 22.214926 | 113.826879 | WINTER | NONE        | P   |
| 04-Dec-24 | 6     | 1203 | CWD    | 2     | WL   | 3    | 158 | ON     | 3RS ET – POST | 22.214923 | 113.833946 | WINTER | NONE        | P   |
| 13-Dec-24 | 1     | 1453 | CWD    | 5     | SWL  | 5    | 60  | ON     | 3RS ET – POST | 22.189843 | 113.849319 | WINTER | NONE        | P   |
| 18-Dec-24 | 1     | 1151 | FP     | 1     | SWL  | 2    | 11  | ON     | 3RS ET – POST | 22.147287 | 113.917044 | WINTER | NONE        | P   |
| 18-Dec-24 | 2     | 1428 | CWD    | 12    | SWL  | 2    | 39  | ON     | 3RS ET – POST | 22.189655 | 113.859587 | WINTER | NONE        | P   |

Abbreviations: STG# = Sighting Number; GP SZ = Dolphin Group Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance (in metres); N/A = Not Applicable;  
DEC LAT = Latitude (WGS84 in Decimal), DEC LON = Longitude (WGS84 in Decimal); BOAT ASSOC. = Fishing Boat Association

## CWD Small Vessel Line-transect Survey

## Photo Identification – Residency Pattern of Selected Dolphin Individuals

| ID      | Residency | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |    |    |    | 2022 |    |    |    | 2023 |    |    |    | 2024 |    |    |    | #STG |
|---------|-----------|------|------|------|------|------|------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|
|         |           |      |      |      |      |      |      | SP   | SU | AU | WI | SP   | SU | AU | WI | SP   | SU | AU | WI | SP   | SU | AU | WI |      |
| NLMM001 | SR        |      | 1    | 1    | 3    | 4    |      |      | 1  |    | 1  |      |    |    |    |      | 1  | 2  | 1  |      |    |    |    | 15   |
| NLMM002 | SV        |      | 8    | 2    | 4    | 1    |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    | 15   |
| NLMM004 | SV        |      | 4    | 7    | 7    | 6    | 2    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    | 26   |
| NLMM006 | SV        |      | 10   | 1    | 5    | 4    |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    | 20   |
| NLMM009 | SR        |      | 3    | 6    | 5    | 2    | 2    |      | 4  |    | 3  |      | 1  |    |    |      |    |    | 2  |      |    |    |    | 28   |
| NLMM013 | SR        |      | 10   | 2    | 7    | 5    | 1    |      | 3  | 1  |    |      |    | 1  | 1  |      | 1  |    | 1  | 1    | 3  |    | 1  | 38   |
| NLMM015 | SR        |      | 1    | 3    | 5    | 2    | 3    |      | 7  |    |    |      | 2  | 1  |    |      |    |    | 1  |      |    |    |    | 25   |
| NLMM016 | SR        |      | 1    | 5    | 2    | 6    |      |      |    |    | 1  |      | 1  |    | 1  | 2    |    | 1  | 1  |      |    |    |    | 21   |
| NLMM019 | SR        |      | 4    | 7    | 2    | 6    | 1    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    | 20   |
| NLMM020 | SR        |      | 2    | 7    | 2    | 4    | 1    |      | 1  |    | 1  |      |    |    |    | 2    | 1  |    | 1  | 1    |    |    |    | 23   |
| NLMM023 | SR        |      | 2    | 5    | 6    | 1    | 2    |      | 1  |    | 3  |      |    | 1  |    |      |    | 2  |    |      | 3  |    | 1  | 27   |
| NLMM027 | SR        |      | 2    | 3    |      | 2    | 1    |      |    | 1  | 1  |      | 1  | 1  |    | 2    | 1  |    | 2  |      | 1  |    | 1  | 19   |
| NLMM028 | SR        |      | 4    | 3    | 1    |      |      |      |    |    |    |      |    | 1  | 1  |      |    | 1  | 1  |      | 3  |    |    | 15   |
| NLMM052 | SR        |      |      | 3    | 4    | 1    | 2    |      |    |    | 3  | 1    |    |    |    |      |    |    | 2  |      | 1  |    |    | 17   |
| NLMM063 | SR        |      |      |      | 9    | 6    | 3    |      | 2  |    | 1  |      | 1  |    | 1  |      | 1  | 1  |    |      | 1  |    |    | 26   |
| SLMM002 | YR        | 1    | 6    | 1    | 3    | 5    | 5    |      |    |    |    | 3    | 4  | 3  |    | 1    | 2  | 1  | 2  | 1    | 2  | 1  | 1  | 42   |
| SLMM003 | YR        | 1    | 3    | 1    | 9    | 8    | 16   | 2    | 3  | 4  | 1  | 4    | 1  |    |    | 4    | 2  | 3  | 2  | 2    | 3  | 1  | 5  | 75   |
| SLMM007 | YR        | 1    | 4    | 3    | 4    | 5    | 9    | 1    |    | 3  | 2  | 1    |    | 1  | 5  | 3    | 2  | 1  | 1  | 1    | 1  |    | 2  | 50   |
| SLMM010 | YR        | 1    | 9    | 5    | 6    | 5    | 9    | 2    | 4  | 2  | 1  | 3    |    |    | 1  | 3    | 4  | 1  | 1  |      | 1  |    |    | 58   |
| SLMM011 | SV        |      | 7    | 6    |      | 3    | 2    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    | 18   |
| SLMM012 | SR        | 1    | 3    | 2    | 4    | 7    | 9    |      | 3  | 1  | 4  | 5    | 2  |    | 1  |      |    |    |    |      |    |    |    | 42   |
| SLMM014 | VR        |      | 8    | 11   | 7    | 4    | 12   | 2    | 2  | 3  | 6  |      | 5  | 2  |    | 4    | 1  | 1  | 2  | 3    | 2  | 2  | 1  | 78   |

| ID      | Residency | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |    |    |    | 2022 |    |    |    | 2023 |    |    |    | 2024 |    |    |    | #STG |
|---------|-----------|------|------|------|------|------|------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|
|         |           |      |      |      |      |      |      | SP   | SU | AU | WI | SP   | SU | AU | WI | SP   | SU | AU | WI | SP   | SU | AU | WI |      |
| SLMM022 | SR        |      | 7    | 3    | 2    | 5    | 3    |      |    | 1  | 1  |      |    |    |    |      | 3  | 1  |    |      |    |    |    | 26   |
| SLMM023 | YR        |      | 2    | 7    | 2    | 1    | 8    |      | 1  | 1  | 1  |      | 1  | 3  | 1  | 3    | 2  | 1  | 1  | 1    | 3  | 1  |    | 40   |
| SLMM025 | SR        |      | 1    | 1    | 1    | 3    | 7    |      |    | 1  | 2  | 4    | 1  | 1  |    | 3    |    |    | 1  | 1    | 1  |    | 1  | 29   |
| SLMM027 | SR        |      | 1    | 3    | 5    | 1    | 2    |      | 1  | 1  | 1  | 1    | 1  |    |    | 6    | 1  |    |    | 1    | 2  |    | 1  | 28   |
| SLMM028 | SR        |      | 5    | 5    | 6    | 4    | 4    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    | 24   |
| SLMM029 | SR        |      | 2    |      | 1    | 3    |      |      |    | 1  | 1  | 1    | 1  | 1  | 1  |      | 2  |    |    | 1    | 1  |    |    | 16   |
| SLMM030 | SR        |      | 4    | 6    | 3    | 2    | 2    | 1    |    | 1  | 1  |      |    |    | 1  |      |    |    | 1  |      | 1  |    |    | 23   |
| SLMM031 | SR        |      | 4    | 5    | 2    | 2    | 7    | 1    |    | 1  | 3  |      |    | 1  | 1  | 3    |    |    | 5  | 1    |    | 2  |    | 38   |
| SLMM034 | SR        |      | 3    | 2    | 4    | 3    | 5    | 1    | 1  |    |    |      | 1  |    |    | 1    |    | 2  | 2  |      | 1  |    |    | 26   |
| SLMM035 | SR        |      | 1    |      | 1    | 1    | 2    |      |    |    | 2  |      | 1  | 2  | 2  | 3    |    |    | 3  |      | 1  |    |    | 19   |
| SLMM037 | YR        |      | 3    | 4    | 2    | 5    | 12   | 4    | 4  | 3  | 4  | 2    | 5  | 3  | 2  | 5    | 3  | 1  | 2  | 1    |    |    | 1  | 66   |
| SLMM044 | YR        |      | 2    |      | 4    | 1    | 2    |      |    |    |    | 3    | 1  | 2  | 4  | 4    | 3  | 2  | 2  |      |    |    |    | 30   |
| SLMM049 | SR        |      | 2    | 3    | 3    | 7    | 8    | 1    | 1  | 1  | 1  |      | 1  | 3  | 1  | 5    | 1  | 2  |    |      | 5  | 1  |    | 46   |
| SLMM050 | SR        |      | 1    | 2    |      | 3    | 3    |      |    |    |    |      | 2  |    |    | 1    |    |    | 1  |      | 4  |    |    | 17   |
| SLMM052 | YR        | 1    | 1    | 7    | 5    | 8    | 9    | 1    |    | 1  | 1  | 3    | 1  | 1  | 1  | 1    | 6  | 1  |    | 1    | 3  |    | 5  | 57   |
| SLMM058 | SR        |      |      | 1    | 4    | 2    | 3    |      |    | 1  | 3  |      |    | 2  |    | 3    |    |    | 3  |      | 1  |    |    | 23   |
| SLMM060 | SR        |      |      | 1    | 3    | 2    | 2    |      | 1  |    | 3  | 2    | 2  | 1  |    | 1    | 1  | 2  |    | 1    | 1  |    |    | 23   |
| SLMM073 | SR        |      |      |      |      |      | 1    | 1    |    | 2  | 2  |      |    |    | 4  | 2    | 2  |    | 1  | 1    |    |    |    | 16   |
| WLMM001 | YR        | 1    | 1    | 8    | 11   | 5    | 7    |      | 2  | 1  | 5  | 3    |    | 1  | 4  | 2    | 3  | 1  | 1  |      | 5  | 1  | 3  | 65   |
| WLMM003 | SR        | 1    | 1    | 3    | 2    | 2    | 4    |      |    | 1  |    |      | 3  |    | 3  | 1    |    | 3  |    |      | 5  |    |    | 29   |
| WLMM004 | SR        | 1    |      | 3    | 5    | 4    | 2    | 2    |    | 1  |    |      | 1  |    |    |      | 1  |    |    | 1    | 1  |    |    | 22   |
| WLMM005 | SR        | 1    | 2    |      | 1    | 2    | 2    |      |    |    |    | 2    |    |    | 1  | 1    | 1  |    |    |      | 2  |    |    | 15   |
| WLMM006 | SV        | 1    | 1    | 4    | 6    | 3    | 3    |      |    |    | 2  |      |    |    |    |      |    |    |    |      |    |    |    | 20   |
| WLMM007 | YR        | 1    | 4    | 6    | 4    | 6    | 9    | 2    |    | 3  |    |      | 1  | 2  |    | 3    | 3  | 3  | 1  | 1    | 3  |    | 3  | 55   |

| ID      | Residency | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |    |    |    | 2022 |    |    |    | 2023 |    |    |    | 2024 |    |    |    | #STG |
|---------|-----------|------|------|------|------|------|------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|
|         |           |      |      |      |      |      |      | SP   | SU | AU | WI | SP   | SU | AU | WI | SP   | SU | AU | WI | SP   | SU | AU | WI |      |
| WLMM008 | SR        | 1    | 1    | 6    | 1    | 3    | 3    |      |    |    | 1  |      |    |    |    |      |    |    |    |      | 1  |    |    | 17   |
| WLMM009 | SR        | 1    | 1    | 4    | 5    | 1    | 4    |      | 1  |    |    |      |    |    |    |      |    |    |    |      | 1  |    |    | 18   |
| WLMM018 | SR        |      | 3    | 3    | 2    | 1    | 4    | 1    |    |    |    |      | 1  | 2  |    | 1    | 1  |    |    |      | 1  | 1  | 1  | 22   |
| WLMM019 | SR        |      | 1    | 3    | 2    | 2    | 1    |      | 2  | 1  |    |      | 2  |    | 1  |      |    |    | 1  |      |    |    |    | 16   |
| WLMM027 | SR        |      | 9    | 6    | 7    | 5    | 2    | 1    |    |    |    |      |    |    | 2  | 1    |    |    |    | 1    |    | 1  | 1  | 36   |
| WLMM028 | SR        |      | 4    | 2    | 6    | 1    | 7    | 1    | 2  |    | 2  |      |    |    | 2  | 1    | 3  |    | 1  |      |    |    | 1  | 33   |
| WLMM029 | SR        |      | 3    | 2    | 6    | 4    | 4    | 1    | 1  |    | 2  |      | 1  | 1  | 2  | 1    |    |    | 1  | 1    |    |    | 1  | 31   |
| WLMM030 | SR        |      | 4    | 3    | 1    | 2    | 3    |      | 1  |    | 1  |      |    |    |    |      | 2  |    |    |      |    |    |    | 17   |
| WLMM043 | SR        |      | 3    | 6    | 6    | 8    | 3    |      | 4  | 3  | 2  | 2    |    | 1  |    | 2    | 1  | 2  | 2  |      | 2  |    | 1  | 48   |
| WLMM049 | SR        |      | 3    | 2    | 1    | 3    |      |      |    |    |    |      | 4  |    | 1  |      |    |    |    |      | 1  |    |    | 15   |
| WLMM054 | SR        |      | 3    | 4    | 6    | 7    |      |      |    |    | 1  |      |    |    |    |      |    |    |    |      |    |    |    | 21   |
| WLMM056 | YR        |      | 1    | 3    | 4    | 7    | 5    |      |    | 1  | 3  | 5    | 3  | 1  |    | 6    | 1  | 3  | 1  | 2    | 1  |    | 2  | 49   |
| WLMM060 | SR        |      | 1    | 4    | 7    | 2    | 4    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    | 18   |
| WLMM063 | SR        |      | 1    | 3    | 5    | 4    | 2    | 2    | 1  | 1  |    | 1    | 2  |    | 1  | 2    |    |    | 1  |      | 2  |    |    | 28   |
| WLMM065 | SR        |      |      | 5    | 6    | 4    | 2    | 1    | 1  | 1  | 1  |      |    |    | 3  | 1    |    | 2  | 1  |      | 2  | 2  |    | 32   |
| WLMM067 | SR        |      |      | 2    | 1    | 6    |      |      | 1  | 1  | 1  | 2    | 3  |    | 2  | 2    | 1  |    | 1  | 1    | 1  |    | 1  | 26   |
| WLMM071 | SR        |      |      | 6    | 9    | 3    | 4    |      |    | 2  | 4  | 1    | 1  | 1  |    |      | 2  | 1  | 1  | 1    | 2  |    | 1  | 39   |
| WLMM073 | SR        |      |      | 2    | 3    | 2    | 7    |      | 1  | 2  |    | 2    |    |    | 1  | 3    | 1  |    |    |      | 2  |    | 1  | 27   |
| WLMM078 | SR        |      |      | 3    | 6    | 6    |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    | 15   |
| WLMM079 | YR        |      |      | 5    | 5    | 10   | 9    | 1    | 1  | 4  | 1  | 3    | 2  |    | 1  | 3    | 3  | 1  | 1  |      | 2  |    | 2  | 54   |
| WLMM109 | SR        |      |      |      | 4    | 1    | 3    |      |    |    |    | 2    | 1  | 1  | 1  | 1    |    | 1  | 1  |      | 4  |    | 1  | 21   |
| WLMM114 | SR        |      |      |      | 6    | 2    | 12   | 1    | 3  | 2  | 3  | 3    |    | 2  | 2  | 4    | 1  |    | 1  |      | 4  |    | 3  | 49   |
| WLMM131 | SR        |      |      |      | 1    | 6    | 8    | 2    | 2  | 2  | 3  |      | 3  | 3  | 1  |      |    |    |    |      |    |    |    | 31   |
| WLMM147 | SR        |      |      |      |      | 2    | 6    |      |    |    | 1  |      | 1  |    |    | 1    | 2  |    | 1  |      | 1  |    | 2  | 17   |

\* Residency: YR = Year-round Resident; SR = Seasonal Resident; SV = Seasonal Visitor

Seasons: AU = Autumn; SP = Spring; SU = Summer; WI = Winter,

#STG = Total number of sightings

## Annex 1 List of References (Tom, Bernd and Sarah to update)

### CWD Monitoring:

- Buckland, S. T., D. R. Anderson, K. P. Burnham, J. L. Laake, D. L. Borchers and L. Thomas. 2001. Introduction to Distance Sampling: Estimating Abundance of Biological Populations. Oxford University Press.
- Buckland, S. T., D. R. Anderson, K. P. Burnham, J. L. Laake, D. L. Borchers and L. Thomas. 2004. Advanced Distance Sampling. Oxford University Press.
- Buckstaff, K.C., Wells, R.S., Gannon, J.G., Nowacek, D.P. 2013. Responses of bottlenose dolphins (*Tursiops truncatus*) to construction and demolition of coastal marine structures. *Aquat. Mamm.* 39, 174-186. (doi: 10.1578/AM.39.2.2013.174)
- Castellote, M., Clark, C.W., Lammers, M.O. 2012. Acoustic and behavioral changes by fin whales (*Balaenoptera physalus*) in response to shipping and airgun noise. *Biol. Conserv.* 147, 115-122. (doi:10.1016/j.biocon.2011.12.021)
- Chen, T., Hung, S.K., Qiu, Y., Jia, X. & Jefferson, T.A. 2010. Distribution, abundance, and individual movements of Indo-Pacific humpback dolphins (*Sousa chinensis*) in the Pearl River Estuary, China. *Mammalia*, 74, 117-125.
- Chilvers, B. L., P. J. Corkeron and M. L. Puotinen. 2003. Influence of trawling on the behaviour and spatial distribution of Indo-Pacific bottlenose dolphins (*Tursiops aduncus*) in Moreton Bay, Australia. *Canadian Journal of Zoology* 81:1947-1955.
- Finneran, J.J., Schlundt, C.E., Branstetter, B.K., Trickey, J.S., Bowman, V., Jenkins, K. 2015. Effects of multiple impulses from a seismic air gun on bottlenose dolphin hearing and behavior. *J. Acoust. Soc. Amer.* 137, 1634-1646. (doi: <http://dx.doi.org/10.1121/1.4916591>)
- Gailey, G. & Ortega-Ortiz, J.G. 2002. A note on a computer-based system for theodolite tracking of cetaceans. *Journal of Cetacean Research and Management*, 4, 213-218.
- Gailey, G., Würsig, B. & McDonald, T.L. 2007. Abundance, behavior, and movement patterns of western gray whales in relation to a 3-D seismic survey, Northeast Sakhalin Island, Russia. *Environmental Monitoring and Assessment*, 134, 75-91.
- Hastie T., Tibshirani R. 1986. Generalized additive models. *Statistical Science*:297-310.
- Hoyt, E. 2011. Marine Protected Areas for Whales, Dolphins, and Porpoises, Second Edition. Earthscan Press, London, UK. 464 pp.
- Huang, S., Karczmarski, L., Chen, J., Zhou, R., Wen, L., Zhang, H., Li, H. & Wu, Y. 2012. Demography and population trends of the largest population of Indo-Pacific humpback dolphins. *Biological Conservation*, 147:234-242.
- Huang Z, Fang L, Wen H, Zhang K, Wang X and Chen T (2024) Responses of Indo-Pacific humpback dolphins (*Sousa chinensis*) to construction of the Hong Kong–Zhuhai–Macao Bridge. *Front. Mar. Sci.* 11:1407937. doi: 10.3389/fmars.2024.1407937
- Hung, S.K. 2008. Habitat use of Indo-Pacific humpback dolphins (*Sousa chinensis*) in Hong Kong. Ph.D. dissertation. University of Hong Kong, Hong Kong, 266 p.
- Hung, S.K. 2016. Monitoring of Marine Mammals in Hong Kong Waters (2015 – 2016) Final Report (1 April 2015 to 31 March 2016). Agriculture, Fisheries and Conservation Department of the Hong Kong SAR Government.



Jefferson, T.A. 2000. Population biology of the Indo-Pacific hump-backed dolphin in Hong Kong waters. *Wildlife Monographs*, 144, 65 pp.

Jefferson, T.A. 2018. Hong Kong's Indo-Pacific humpback dolphins (*Sousa chinensis*): Assessing past and future anthropogenic impacts and working toward sustainability. *Aquatic Mammals* 44:711-728.

Jefferson, T.A. and S. Leatherwood. 1997. Distribution and abundance of Indo-Pacific hump-backed dolphins (*Sousa chinensis* Osbeck, 1765) in Hong Kong waters. *Asian Marine Biology* 14:93-110.

Jefferson, T. A., E. A. Becker and S. L. Huang. (2023). Influences of natural and anthropogenic habitat variables on Indo-Pacific humpback dolphins *Sousa chinensis* in Hong Kong. *Endangered Species Research*, 51, 143-160. <https://doi.org/10.3354/esr01249>

Lammers, M.O., Brainard, R.E., Au, W.W.L., Mooney, T.A. & Wong, K.B. 2008. An ecological acoustic recorder (EAR) for long-term monitoring of biological and anthropogenic sounds on coral reefs and other marine habitats. *Journal of the Acoustical Society of America*, 123, 1720-1728.

Lundquist, D., Gemmell, N.J. & Würsig, B. 2012. Behavioural responses of dusky dolphin groups (*Lagenorhynchus obscurus*) to tour vessels off Kaikoura, New Zealand. *Plos ONE*, 7, 9pp.

Lusseau, D. 2006. The short-term behavioral reactions of bottlenose dolphins to interactions with boats in Doubtful Sound, New Zealand. *Marine Mammal Science*, 22(4), 802-818.

Marques, F. F. C. and S. T. Buckland. 2003. Incorporating covariates into standard line transect analyses. *Biometrics* 59:924-935.

Marques, F. F. C. and S. T. Buckland. 2004. Covariate models for the detection function. Pages 31-47 in S. T. Buckland, D. R. Anderson, K. P. Burnham, J. L. Laake, D. L. Borchers and L. Thomas, eds. *Advanced Distance Sampling*. Oxford University Press.

Mott MacDonald. 2014. Expansion of Hong Kong International Airport into a Three-Runway System Environmental Impact Assessment Report. The Airport Authority Hong Kong, Hong Kong.

Munger, L., Lammers, M.O., Cifuentes, M., Würsig, B., Jefferson, T.A. & Hung, S.K. 2016. Indo-Pacific humpback dolphin occurrence north of Lantau Island, Hong Kong, based on year-round passive acoustic monitoring. *Journal of the Acoustical Society of America*, 140, 2754–2765.

Mott MacDonald 2014. Expansion of Hong Kong International Airport into a Three-Runway System. Environmental Impact Assessment Report. Final report to the Hong Kong SAR Government.

Mott MacDonald 2019. Chinese White Dolphin Monitoring Annual Review Report – January 2018 to December 2018. Final report to the Hong Kong SAR Government.

Nowacek, D.P., Thorne, L.H., Johnston, D.W., Tyack, P.L. 2007. Responses of cetaceans to anthropogenic noise. *Mamm. Rev.* 372, 81-115. (doi: 10.1111/j.1365-2907.2007.00104.x)

Piwetz, S., Hung, S., Wang, J., Lundquist, D. & Würsig, B. 2012. Influence of vessel traffic on movements of Indo-Pacific Humpback dolphins (*Sousa chinensis*) off Lantau Island, Hong Kong. *Aquatic Mammals*, 38, 325-331.

Quinn, G. P., & Keough, M. J. 2002. Experimental design and data analysis for biologists. Cambridge University Press.

Rolland, R.M., Parks, S.E., Hunt, K.E., Castellote, M., Corkeron, P.J., Nowacek, D.P., Wasser, S.K., and Kraus, S.D. 2012. Evidence that ship noise increases stress in right whales. *Proc. R. Soc. B* 279, 2363-2368. (doi: 10.1098/rspb.2011.2429)

Sims, P.Q., Vaughn, R., Hung, S.K. & Würsig, B. 2012a. Sounds of Indo-Pacific humpback dolphins (*Sousa chinensis*) in West Hong Kong: A preliminary description. *J. Acoust. Soc. Am.* 131: EL48-EL53.

Sims, P.Q., Hung, S.K. & Würsig, B. 2012b. High-speed vessel noises in West Hong Kong waters and their contributions relative to Indo-Pacific humpback dolphins (*Sousa chinensis*). *Journal of Marine Biology*, 2012, 11 pp.

Thomas, L., S. T. Buckland, E. A. Rexstad, J. L. Laake, S. Strindberg, S. L. Hedley, J. R. B. Bishop, T. A. Marques and K. P. Burnham. 2010. Distance software: design and analysis of distance sampling surveys for estimating population size. *Journal of Applied Ecology* 47:5-14.

Turchin, P. 1998. *Quantitative Analysis of Movement: Measuring and modelling population redistribution in animals and plants*. Sinauer Associates, Inc., U.S.A.

Wiggins, S.M. & Hildebrand, J. 2007. High-frequency Acoustic Recording Package (HARP) for broadband, long-term marine mammal monitoring. In: *Symposium on Underwater Technology and Workshop on Scientific Use of Submarine Cables and Related Technologies* (ed. by Anonymous), pp. 551-557.

Wood S. 2006. *Generalized additive models: an introduction with R* CRC press.

Würsig, B., Cipriano, F. & Würsig, M. 1991. Dolphin movement patterns: information from radio and theodolite tracking studies. In: *Dolphin societies: Discoveries and puzzles* (ed. by K. Pryor & K.S. Norris), pp. 79-111. University of California Press.

